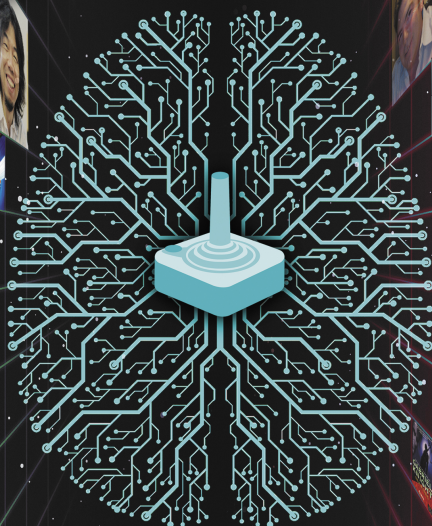# The Minds Behind the Games

Interviews with Cult and Classic Video Game Developers

Patrick Hickey, Jr.

Foreword by Brett Weiss

Studies in Gaming

SERIES EDITOR *Matthew Wilhelm Kapell*

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Each photograph of an individual was provided by the individual shown therein. All illustrations of games and box covers were taken from the game's official site, thecoverproject.net, from the developer or from capturing live gameplay, with the exception of the following: illustrations for *The Suffering*, *Pro Wrestling X*, *Voodoo Vince*, *Squids*, *ToeJam and Earl* and *Mutant League Football* were provided by the developer.

Front cover images from iStock and author's collection

To my wife, Melissa, and my daughter, Josie.

Acknowledgments

It's no small task being married to and the daughter of a man that teaches college full-time, runs an entertainment website, freelances and runs retro gaming tournaments and now, writes books. My wife was six months pregnant when the idea for this book came to me. When everyone told me I was crazy to even think about doing this, Melissa told me simply "just do it." Talk about supportive. Adding this book to my already exhaustive schedule was a dream come true though. But it was also one that was an emotional and intellectual journey. One that I was sometimes not prepared for. Melissa, thank you so much for understanding and just listening, even when you had no idea who or what I was talking about. Throughout the six months that it took to write this book, I know that while I never slacked in the foot massage and home responsibility department, my mind was often heavily concentrated on video games and not more "adult" responsibilities. I know there were late night feedings and dog walks I complained about too. You always handled it with patience and resolve. Thank you.

And Josie, while you're too young to understand, I want you to know that this book was not only for me, but for you as well. Throughout my life, I've heard the credo from my parents that their goal was always to make sure I had it better than them. My goal is so much more than that. I want to be a person you can look up to. To be someone of strong mind, body and spirit. The publication of this book allows me to accomplish one of my biggest dreams and to now focus on being the parent you need so you can dream and aspire for your own successes.

Melissa and Josie, thank you both for loving and accepting this big dork for who he is and will always be, a gamer and a journalist that loves you both with all of his heart.

I'd also like to thank the following people—Esteban Sosa, Ben Fong and Andy Flores and the crew at Brooklyn Video Games for giving

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Foreword by Brett Weiss

Are video games important? Everyone knows they're fun, but are they important?

Good question.

If you're just talking about pushing buttons and staring at a screen, video games aren't much more important than bouncing a tennis ball off the side of your house or twiddling your thumbs.

But we're talking about much more here.

Recently, I solicited stories from people about some of the video games that were, yes, *important* to them, for a Super Nintendo book I've been working on. The stories ranged from receiving a special game for a birthday to Saturday night marathons with friends to bonding with a grandparent over a favorite title. Phrases like "dear to my heart" and "remember it fondly" in conjunction with words like "amazing," "awesome" and "happy" were batted around like the ball in *Warlords* for the Atari 2600.

One physically challenged contributor to my SNES book wrote at length about how *F-Zero* let her compete on an even playing field with her able-bodied friends and siblings.

To put it mildly, the better responses were awesome and even life-affirming.

Video games are important in numerous ways. We've all heard about the vaunted improvement in eye-hand coordination one can gain from video games, and of course they are an excellent way to blow off steam and relieve stress at the end of a tough day. The artistic and interactive story elements of games have been touted as well.

With *The Minds Behind the Games: Interviews with Cult and Classic*

Video Game Developers, Patrick Hickey, Jr., focuses on the people and the stories behind the making of the games, and anyone who's not a sociopath knows that people and the stories they tell are important. Stories are the most interesting way we communicate with one another, and with future generations. Tell someone a list of dry facts, and they're eyes will likely glaze over. Tell someone a story—a good and interesting story, that is—and they'll sit up and listen.

The Minds Behind the Games is filled with good, interesting stories about such lore-ridden titles as *Yar's Revenge*, *Night Trap* and *Road Rash*. These are important (there's that word again) games that influenced the industry far beyond giving gamers a different sequence of buttons to press and more images to watch. The book also sheds light on such lesser-known titles as *Fighting Force*, *Gabriel Knight* and *Mushroom 11*. If variety is the spice of life, this book is ghost pepper chili.

Rather than searching the web for rehashed and possibly inaccurate info, Hickey did his legwork and went directly to the source, interviewing such industry luminaries as Mark Turmell, Rob Fulop, Garry Kitchen and Warren Spector, along with people even I had never heard of, such as Sarah Jane Avory and Clayton Kauzlaric. If these names are unfamiliar to you, they certainly won't be by the time you're done with this book.

Are video games important?

Turn the page and discover for yourself.

Longtime gamer Brett Weiss is the author of more than 1,500 published articles. His work has appeared in numerous publications, including *Game Informer*, *Gameroom Magazine*, *Classic Gamer Magazine*, *RETRO Magazine*, *Fangoria*, *Filmfax*, and *The Miami Herald*, among many others. He is also the author of eight books,

including the "Classic Home Video Games" series and *The 100 Greatest Console Video Games: 1977–1987*.

Preface

Video game journalism has existed since the industry was born, but there has often been a disconnect between opinion and fact. Anyone who has read a video game magazine today (the ones that are left, that is) or has gone on the internet to find out the latest information on an upcoming game may not see evidence of this, but it's always been there. At times, covering the video game industry feels like that episode of *South Park*, where ads and opinion are everywhere, even as people and facts are nowhere to be found.

Simply put, there's a plethora of opinion and a diminishing focus on reporting in general media coverage today. In the case of video game journalism, it's just as bad. For every Danny O'Dwyer and Chris Plante there are out there, there are fifty reporters more concerned about page views than telling a real story that matters. One outlet writes an excellent interview and by the end of the day, everyone links to it and along the way, like a game of telephone, the information gets twisted and distorted to the point where its value is completely diminished. The invention of platforms the likes of WordPress, Instagram, YouTube and Twitch means that everyone who plays games has a voice, which is fantastic. However, the need for factual information is stronger than ever before.

I have covered the industry for over a decade, and have seen the people who are more interested in getting free games and going to lush parties with developers than doing real work. It would be too easy to blame game publishers for throwing swag and pleasantries to every reporter and critic for positive coverage. Ultimately the onus falls on the writers and personalities—their credibility and accountability must always be their most valued commodity. At the same time, if the field was different, this book wouldn't need to be written.

This book was written to let some of the most influential and interesting developers tell their stories. Because ultimately, you

don't care if I love a game or if a certain one is my favorite. You don't care about the hundreds of pitches sent for this book or the hours of telephone conversations and the mornings, afternoons and nights I spent typing and scribbling away. And you definitely don't care about the nights I spent sending pitches to developers with one hand and massaging my pregnant wife's feet with the other. You came here to find out what inspired the games that inspired you. And that's exactly what I've tried to provide here: an accurate and passionate sharing of facts that led to the creation of some of the most important games of the last forty years. At the end of the day, this book is a love letter to my passion for the industry and the hard work that these creators have put into the games featured. Video game journalism deserves better and my hope is that this book will help foster a change.

Let's get things straight, though. Saying there is absolutely zero opinion in this book is like asking for fat free ice cream—it's not going to happen. Opinion always exists. I understand that in order to cover this industry or any topic, you need to love it, but that love can never supersede your objectivity and quest for the truth. Throughout the writing of this book I made sure that my love of all of these games was as invisible as possible and that every developer was given a platform to share from their heart. All I've done in this book is create the road for their words to travel on. The words of each developer are the vessel, the most important element, without a doubt.

Creating that road has been one heck of a challenge, but it has been a purposeful one. As an owner of over thirty consoles and thousands of games, I thought I was pretty knowledgeable about the industry and its history before I started writing this book. I have run tournaments at a retro video game store, frequented sites like MobyGames, Gameasutra and yes, Wikipedia, and read all the long features on Polygon that the people who care about the odd and ends of this industry love. Over the course of my decade-plus as a gaming journalist for NBC, Examiner and my own site, ReviewFix.com, I've interviewed dozens of mainstream developers and hundreds of indie ones, but all of that was nothing compared to the educational journey this book was. Simply put, there were times when I was reading answers from developers or on the phone with

them and I realized I had just found out something no one else in the world knew. At times I wanted to smile and cry at the same time. Add in all of the reading of interviews, books, listening to podcasts and of course, playing games and all the other research that has gone into this book, hundreds of hours later and I can say I am far more educated today than I ever was before.

But nothing else proved how worthwhile this adventure has been than seeing how my wife responded to me when I told her about the progress of the book as it was developing. I remember the first time my wife saw my game collection in 2010, while we were dating. She was mortified. She had just walked into a world she didn't understand. Fast forward seven years and I can tell you that while she still doesn't "get" why I love games so much, she understands it makes myself and millions of other people happy. The smirk I'd get when I told her I got a new developer for the project and the "I know, it's cool" answer she'd give me when I got excited was proof that this project was far from a waste of time. As arduous an effort it was for me, it was an opportunity to give back to a medium that has gotten me through and been a part of my entire life.

From the moment I could hold a controller, I've been a gamer. Games the likes of *Contra* and *RBI Baseball* were reasons I faked being sick in kindergarten, while games the likes of *NHLPA 93*, *Desert Strike*, *Road Rash*, *Kings Bounty* and *Super Battletank* were ways I'd spend time with my father as a pre-teen when it was nasty outside. As a teenager I was bit by the RPG bug on the PlayStation and the long list of great wrestling games on the Nintendo 64, as well as *Pokémon*. The *Diablo* and *Fallout* series were and still are my escape after a long day of work and *TowerFall* is a game that my nephews and I can play for hours together. Moving forward, I hope the memories of gaming with family and friends never stop. The hope is that this book ignites those feelings in your heart and possibly opens it up for a few more with a few new games and friends.

Every single game in this book is here for a reason, whether it be critical reception or even a complete lack thereof. But there will be no "this is the best game in this book," or subjective rankings

either. Like athletes in different eras or sports, there's no way to say definitively what game did more for the industry or which one is the greatest of all time. Anyone who tells you otherwise isn't nearly as educated in the field as they claim and like I said, the whole point of this book is to share experiences and not rate which ones were better than the other. As well, the faster you understand that there's no such thing as an expert in any field and that there's always more to learn about everything, even the things you love, the more you'll get out of this book.

To stretch that notion even further, there are possibly games featured in this book that you have never heard of, or feel don't feel belong. That's fine too. Don't let your opinion or feelings stop you from appreciating how much work and passion went into creating each of these games and the effort it took to chronicle them. If you do, then you're missing the point. In the end, this book is about creating a platform for developers to discuss their projects and to swoon you. Yes, you read that right. Swoon. Like a great song, journalism and even educational books, just like games, should never forget to inspire and invigorate the mind. That being said, the end goal of this book is to create some type of passion. To get you excited. To make you want to read more. If someone reading this book ends up going online and continuing to read more about these games or even play them, then the professor in me will be a happy man.

This book has the honest, unfiltered stories of game developers from the earliest days of the arcade and Atari 2600 to the graphical powerhouses of today that changed the industry. And make no mistake, every developer featured in this book is a part of this book because they wanted to tell their story. Their quotes will not stop in order for an advertisement to play and there will be no in-book purchases needed to unlock anything extra. This book is as pure a journalistic endeavor as possible. None of the developers have been paid for their words. They have taken part because they want to share their experiences. That is what journalism is all about. It's magic. It's all about passion. And that's what video game journalism should be about, too.

Introduction

It's a crazy notion to think that the first home video game consoles hit store shelves over forty years ago. An even more bizarre thought is that many of the creators of the games on those consoles are now old enough to have a Social Security check sent to their home. Sadly, some of the greatest creators in the industry are no longer with us as well. As a result, it's obvious that the earliest video game stars, Donkey Kong, Pac-Man and Pitfall Harry, are no longer spring chickens. Even their replacements as the mascots of the industry, Super Mario and Sonic, are old enough to have a master's degree and a family. Make no mistake, if you are a teenager reading this, your grandfather could have been playing a Magnavox Odyssey well before your mother or father was born. Scary stuff indeed.

Once you're done thinking about where all that time went, it's easy to see that the history of the medium is a lot deeper than you think. Regardless of all that time that's passed and the richness of the history of the medium though, the games you played as a kid still have that resonating effect on you—enough for you to want to share that experience with your friends and children. They are timeless. Unfortunately, most of the time, we don't know who created them. That's quite the opposite of the faces and voices behind our favorite films and music. And unlike the stars of the stage and big screen, the artists that brought and continue to bring you these gifts of game don't feel the need to talk politics on Twitter. Playing their game and having an opinion on it is more than enough.

And play you did—and still do. Many of the games featured throughout the pages of this book affected you as kid even if you don't know they did. And if you're in your thirties, many of the games featured in this book were born when the industry, too, was still discovering itself—a time when the company producing the game was often seen as more important than the person who created it. The same time when one person, or a small team, usually

had an idea pitched it to the powers that be and went off and made a game. There's something special about that. Something that is explored throughout the course of this book—that one person could create something and like a piece of art or a poem, people, decades later, still want to experience it or in this case, play it. Even today, games the likes of *TowerFall* are proof that one man, or a small group of people, can disrupt or make an impact on a billion-dollar industry with an excellent idea and enough passion.

At the same time, even games made with teams of thirty or more people are special. In this day and age of self-obsession, where the word selfie found its way into the dictionary, people can share a passion for the same thing and create something wonderful that stands the test of time. A game such as *The Incredible Hulk: Ultimate Destruction* was a product of a small team, by today's standards and thanks to sharing the beliefs in the project's potential from day one, the team behind it ended up creating one of the finest video game interpretations of a comic book character in the history of games and helped define the game's lead designer, Eric Holmes, as one of the best developers in the industry today.

Speaking of the ability to succeed, thanks to drive and determination, throughout the course of this book, you'll see the passion that every person brought to their respective project. The long nights. The sacrifice. All for some kid to get his button-mashing in before dinner or on a rainy day. Make no mistake, game developers have one of the most thankless jobs in entertainment. That being said, the hope is that by the end of this book you'll see that game designers are indeed a rare breed. Years after their games hit the shelves, they still remember the times they spent with their teams, creating. They still get a kick out of kids, families and even grandparents playing their games and creating new memories. It's almost like magic.

But regardless of how unique the people are in the industry, they haven't, until recently, been promoted or seen as the artists they are. Ask anyone who the creator of *Super Mario Bros.* and *Sonic the Hedgehog* are and many, even someone who has spent hours playing the games, may not know. It's not until the Hideo Kojimas and Eric Jaffes of today that developers and designers have gotten their

celebrity status. That's why the stories of industry icons the likes of David Crane, Jon Van Caneghem, Brian Fargo and Garry Kitchen needed to be shared in this book.

Although many classic and cult game developers don't have the star power of today's game makers, the reach of many of their games on our society is immeasurable. From comic books to film and of course, on the creators of today's games, the developers of the past, regardless of how much mainstream success their games attained, have played a role in what the industry has become today—a force of nature. With so many games based on films, comics, books, television shows and even podcasts (thank you Angry Video Game Nerd) there's so much crossover now that it would be impossible to think about entertainment without having video games at the forefront of that conversation.

At the same time, there's still a negative stigma around video games, cast by people who haven't the slightest clue about the audiences games serve and what their purpose is. The fact that the industry is often to blame whenever there are violent acts—like school shootings or crimes committed by youth—is a sad truth, caused again by a scapegoat theory where someone or something needs to be blamed. For a long time, it was comic books that suffered the wrath of the political regime and were nearly destroyed by the Comic Book Code. But where comics get a pass today, the video game industry continues to take its lumps. While this is a topic that won't be explored in this book, let's just say that the positive ramifications of gaming far outweigh the negative. With a rating system in place for over twenty years, the same safeguards put on music and film are in place for video games. The only reason they get continue to get thrown under the bus in times of peril is because it's easy to do so when the people writing the speeches aren't gamers. Everyone watches movies and listens to music. You're not human if you don't. Video games aren't for everyone. Even though they should be.

The fact that non-gamers don't and can't understand why the medium is an important one again makes it easy for them to think that *Grand Theft Auto* makes kids car jackers and *Leisure Suit Larry* makes young men slime balls. That's simply not the case. Luckily,

with the creation of the Nintendo Wii and the continued mobile game boom, there are more games and gamers than ever before and with that, far more understanding that this is indeed, an art form. And that is basically the heart behind this book's creation: To celebrate game development as an art form and to hear from the masters of this medium as to why these games are important and how they managed to overcome insurmountable odds and an ocean of competition to still be spoken about today. Regardless of your affinity for games (or not), denying their impact is a lost cause.

But with so many games and consoles available today, herein lies the biggest problem. There are too many games for any one person to play. Because of that, our incessant need to rate things and make quick sense of them, a human compulsion, comes into play. It's just so easy to read a review and adopt someone else's opinion than form one of your own. For nearly as long as the industry has existed, magazines and books, as well as TV, radio and the Internet, have sported endless lists of the greatest and most influential games of all-time. It's a conversation that's constantly ongoing and constantly changing. Why? Because it's fun and everyone has a voice. At the same time, it limits our scope of understanding and appreciation and creates a plethora of "experts" that know far less than they think.

For this reason alone, to rate a title on any scale and define it as either classic or a cult game is almost impossible. What some think of as trash could be paradise to others. Over the course of writing this book, I was shocked to read the comments of gamers on Instagram and other social media accounts who shared their thoughts on a variety of games. However, to hear that games the likes of *Max Payne*, one whose innovation changed the third-person shooter genre forever, or a wonderful title such as *Sweet Home*, the game the survival horror genre owes its very existence to, weren't classics, almost made me twitch (that thing your body does—not the video game live-streaming service). To set the record clear, that debate will not reach its conclusion in this book and in fact, won't even begin here. For one, there are not enough pages to accurately cover it and more importantly, who cares? Why are we so obsessed with what a game is within a tiny construct of good or bad, cult or classic, sleeper or commercial success? It completely voids the

reason why we play games in the first place—to enjoy ourselves and to think in ways we can't while we're at the office or tied up with obligations that limit our imaginations.

All of this essentially goes back to the point made previously: Each player's own experiences, or lack thereof, have created labels for thousands of games, almost eliminating the real impact many of these titles had and still have on the marketplace and on the developers of today. At the same time, just like the games that affected you at various stages of your life, the developers of each of the games featured have a unique viewpoint to share as well. Like a time machine into their hearts, each game is a snapshot of the people behind it and the time it was produced. The industry has changed so much from its inception that some of these projects could never be replicated ever again. Scratch that, they won't happen again. Case in point—NHL *FaceOff*'s Quality Assurance team sent in a VHS tape of bugs in the game. That will never happen again. As well, most of the games in this book were created before the Internet even existed. Understanding that is so much more important than putting a meaningless label on the game.

Considering that, the hope for this book is a markedly different one than your average game book. It's an educational one at heart. The point is to hear, straight from the developers themselves, why these games are special ones. That is so much more important than any label the marketplace or media has put on these titles. If you take these words seriously, over the course of this book, you'll be liberated. You'll know the truth behind some of the most important and unique games of the last forty years. That's something so much better than opinion to share with your friends and family—you'll have stories that inspire the imagination, tales that will make you want to fire these games back up and hopefully start and share a few memories of your own.

For the sake of this book however, games are broken into these two categories in a few different ways. Classic games the likes of *Deus Ex*, *ToeJam & Earl* and *Yars' Revenge* get labeled as so because they did three things: sold incredibly well, influenced their respective genres tremendously and still play well today. While all three of these games are close-to or over twenty years old, age has little to

do with this definition of classic. A six-year-old game such as *Squids* on the iOS, is indeed a classic, mainly due to the short time the iPhone has been around, but also because there are far more games on that platform than there ever were on the Atari 2600. The competition is far fiercer and mobile gamers are far more fickle than any 2600 owner was. Getting a game to stand out on the iOS world is indeed a lot more difficult to do than on any home console. Add in the fact that *Squids* sold over 2.3 million units and changed the concept of what a mobile game should be makes it an undeniable classic.

Cult games, however, lack the commercial success of classic games and have impacted the industry, but usually thanks to a single gameplay element or endearing gimmick that makes them unique, they have stood out with a cross-section of gamers. A perfect example of this is Garry Kitchen's *Super Battletank*, which sold well, but was far from being a smash hit. Its sound and gameplay mechanics were solid at the time and hold up well, but the visuals both inside and outside of the tank captured the essence of being in a massive metal war machine so well that it made people play you'd never think would want to play a tank game, and fall in love with it (read the chapter and find out who). The same thing can be said for Taichi Ishizuka's *The Firemen*, which was never released in the United States. It's a rare game based on a firefighter and, thanks to its excellent gameplay, tunes and story, is a game that goes for hundreds of dollars on the retro game market if found in solid condition.

But rather than be confined to definitions of classic and cult, the term influential rings true for both. Regardless of the budget, size of the team, platforms they were released on or how many units they sold, every game featured in this book is special because they changed the industry. They all managed to alter the perceptions of what a game could be by doing something different, or better than ever done before. As stated earlier, many of these games were made at a time when teams were smaller and one person's passion was the deciding factor in the game's release. Although that's far from the norm now, many of these games, from *Road Rash* and *Desert Strike* to a *Boy and His Blob* are still special ones today that have never quite been recreated, even with better technology and several

tries from other developers.

The fact that a game doesn't have the support of a mega publisher doesn't influence these definitions either. Games the likes of *To the Moon*, *Squids* and *Mushroom 11* are featured because they too embody the thriving independent video game scene and how smaller teams can still make influential games that have massive mass market appeal. Odes to a thriving retro game community and a continually blossoming niche gamers market, these games have found a way to stand out among giants. While Nintendo will try to sell you its Nintendo Classic emulator and say they are bringing back retro gaming, it never actually left. Thanks to places such as Steam, GOG and even eBay and Amazon, as well as hundreds of developers that would much rather use tools of old to tell stories, there's no shortage of games inspired by the past or ways to reconnect with the games you played as a kid.

Now that the definitions of these games are taken care of, we can get back to the most important facet of this book—the narratives of the developers featured. In addition to seeing how hard these developers worked on their games, you'll also get to see how some of the battles behind the scenes, with producers, publishers, developers and licensees that will sometimes baffle the mind and add another layer to each tale. Arguments that could have stopped the games from coming out entirely are discussed here. Issues that changed the game for the better or in some cases, worse. Issues in marketing that made something as trivial as deciding the game's name an adventure all its own. Simply put, there's a lot more to video game creation than is immediately apparent. From concept to completion, it's always been a machine. But it's one that's fueled by passion and the need to move people in one way or another.

As stated in the preface and here, it would be too easy to relegate ourselves to cliché terms when describing these games. This book isn't about that though. This isn't a coffee table book or an encyclopedia (which ironically was how it was originally pitched and envisioned). It's a book of stories, most of which are not on Wikipedia or the Internet. Writing this book was an adventure, so reading it should be too. This is supposed to be the type of book you highlight, dog-ear and share with your friends. The journeys of

more than thirty unique minds that have entertained and enthralled us for decades deserves that much. Make no mistake, their journeys to your televisions and even smart phones and imaginations wasn't always an easy one. By understanding the trials and tribulations behind their efforts, your appreciation for their projects should increase astronomically. And ultimately that's what this book is about. But now, for the hardest part of all—forget all the things you thought you knew about games. Leave it somewhere and don't look back. Just channel your inner–Chris Jericho and "drink it in, man." It's going to be fun.

Michael Mendheim, *Mutant League Football*

The Gruesome Sports-Hybrid That Could

● ●

The John Madden series gets all the love and admiration on the Sega Genesis, but Michael Mendheim's *Mutant League Football* is a landmark football game in the 16-bit era, despite it being something much different than the pigskin-sim Madden was.

Rare in even the best retro game shops, the football-hybrid is heralded by collectors and critics as one of the most innovative and brutal games of its time. Think not? It's one of only three "football" games where you can kill your opponents (the others—Jerry Glanville's Pigskin Footbrawl and Bloodbowl) and the only one where you can still gain a victory when you've scored fewer points. Unpredictable, frenetic and of course, hilarious, it's an experience that was—and still is—a blast in a multiplayer setting and one that people still play today. With seven players on the field at once (*Madden 93* had 11), landmines, toxic waste, exploding balls, invisibility and more, it's a football game unlike any other. Regardless, it's one that still manages to capture the essence of what every great football game and sports title should have, a connection to a team and its players.

From the first time you play it, *Mutant League Football* screams polish. With 19 teams, including three All-Star teams, The Toxic All-Pros, The Maniac All-Stars and the Galaxy Aces, the game forces you to care and have favorites. Although it had no "real" players, *Mutant League Football* did feature players the likes of Bones Jackson, K.T. Slayer, Joe Magician and Scary Ice, modeled after NFL legends Bo Jackson, Lawrence Taylor, Joe Montana and Jerry Rice. Simply put, it was a serious game that you weren't supposed to take seriously.

In a day where football games away from the Madden series are

scarce and hybrid ones the likes of *Blood Bowl* are mediocre, *Mutant League Football* represents a time in video game history where the stars aligned—EA Sports was willing to take a chance on something different. The end result was a magical one. Contrary to popular belief among casual gamers, *Mutant League Football* did not use the same engine as *Madden 93*. According to Mendheim, the game was built entirely from scratch, although the game's development team did consult with Scott Orr and Richard Hilleman, two of the lead designers from the Madden team.

But long before he had mutants battling it out on the gridiron, Mendheim got his start in the industry as an illustrator of video game boxes. A success in the advertising industry, Mendheim had no reason to stray, but was eventually lured by former Atari Coin-Op President Joe Robbins into the world of character design and eventually game development.

"Joe Robbins (and his son Richard Robbins) had a huge impact on my career and gave me my start in the industry. Originally my career of choice was graphic design," Mendheim said. "I was illustrating toy packages for *Transformers, Voltron,* painting car ads and posters for liquor companies. My company was doing well and I enjoyed that profession. I then started working for Joe and Richard by illustrating a series of game box covers for Sunsoft and Atari. Some of these boxes included: *Cyberball, Xenophobe, Freedom Force* and *Sky Kid* amongst many others. Over time, this transformed into working on character design and level design. The first game I ever worked on as a designer was a game called *Fester's Quest*, which was developed in Japan and was an *Addam's Family* license. I also illustrated the cover art for that game. Other than having a love for games, I didn't have a clue how to design and this was my first game design job, but game design came naturally for me. When the game was released, it did surprisingly well and then my career slowly transitioned from illustrator to game designer. Had it not been for Joe and Richard giving me that first break, I would probably still be doing illustrations for a living."

After a few years and several titles under his belt, Mendheim made a pitch to Electronic Arts that cemented his career in the industry. While the previous games he was involved in took advantage of his

superior art skills, *Mutant League Football* had "passion project" written on it from the start. "I've always loved football and monsters. My favorite team is the Chicago Bears, also known as 'the Monsters of the Midway'—Football and monsters," Mendheim said. "That's a game I wanted to play. Only one problem, it didn't exist, so it had to be created. Back in 1991, I pitched this idea to one of my friends, Richard Robbins, who was a producer at Electronic Arts [he did the *Desert Strike* series]. He liked the idea and set up a meeting to pitch the game to EA executives who made the product decisions. This included Trip Hawkins, who was the founder and CEO of the company at the time. I spent a few weeks preparing a design and presentation and then flew out to Redwood City. Trip and a majority of the executives liked the idea, and the project was approved with a modest budget."
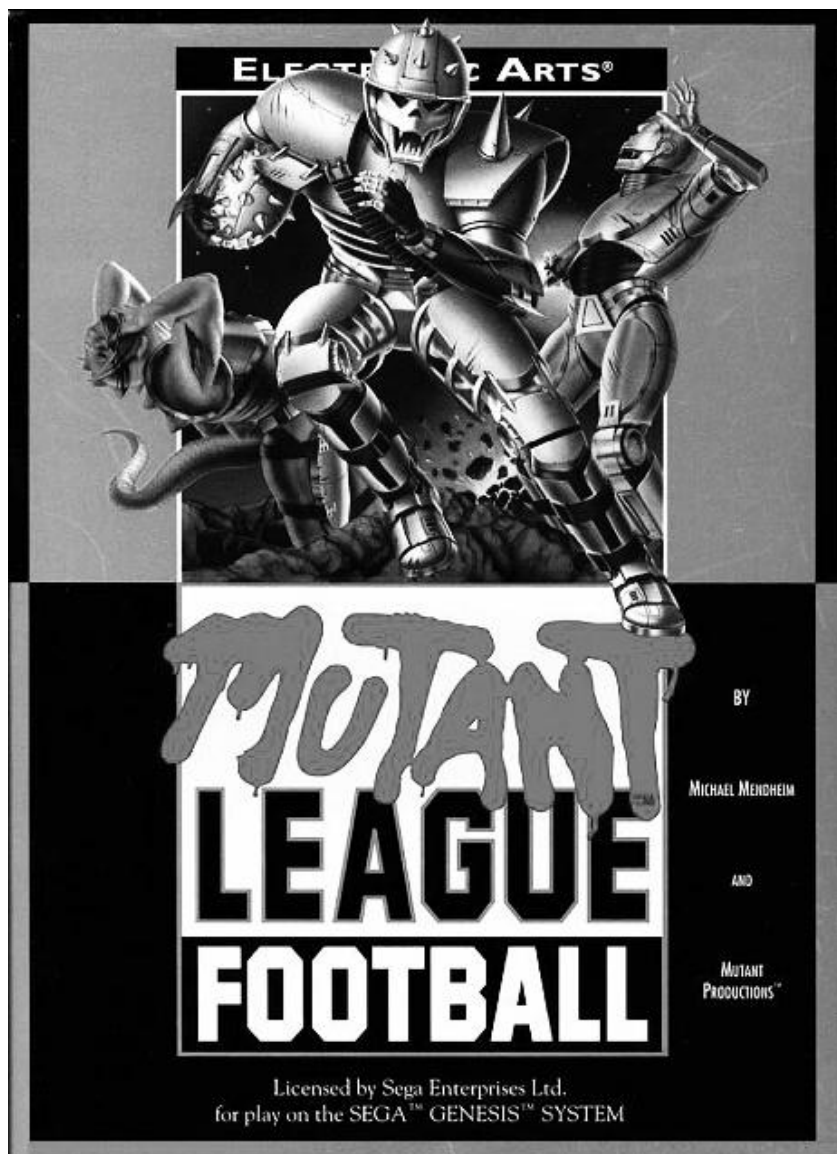
Although it was a departure from Electronic Arts' usual gridiron action, *Mutant League Football* is still regarded as a cult classic on the Sega Genesis.

Despite the game being developed and published by Electronic Arts,

Mendheim was an independent contractor for the company the entire time, learning from some of the industry's best minds. It was a huge risk for the young developer at the time, but one that ironically gave him a ton of creative freedom. Serving in a variety of roles came naturally to Mendheim, but it was only a matter of time that Electronic Arts made sure *Mutant League Football* was everything they wanted it to be as well. "Developing the original game for the Sega Genesis at Electronic Arts was a great experience with many ups and downs. The original producer Richard Robbins, who championed the project, left the company early in the game's development. We had no producer. It was just me and about six other developers (artists and engineers) who were assigned to the project. We worked without much oversight for about 9–12 months. At some point, EA thought it might be a good idea to put a seasoned producer on the project and that was Sam Nelson. He helped guide us across the finish line. Sam gave me a wealth of knowledge on how to develop and produce games. It wasn't always easy working with him, but looking back, without him the game doesn't ship."

Mendheim was far from a noob by 1993, designing *Taz-Mania* for the Super Nintendo the year before, but he was still unknown enough at the time for Electronic Arts to be concerned about the game at several points during the development cycle. Like the Wild West, anything could have happened at that time, but *Mutant League Football* always showed promise. "We were like salmon swimming upstream the entire time. We had minimal support initially, EA was going through major changes. Trip Hawkins had left the company to start 3DO and there was serious restructuring going on," Mendheim said. "I worried every day the game was going to get killed, but with everything going on, we were lucky enough to fly under the radar for about six months. At some point, someone looked at the projects in development and said, what the hell is *Mutant League Football* and who the hell is Michael Mendheim? I wasn't an employee at the company, but people who knew about the project also knew I was the guy behind it. Lucky for us, by the time the big wigs reviewed the game it showed enough fun factor and potential to survive. That's when they brought Sam Nelson on board."
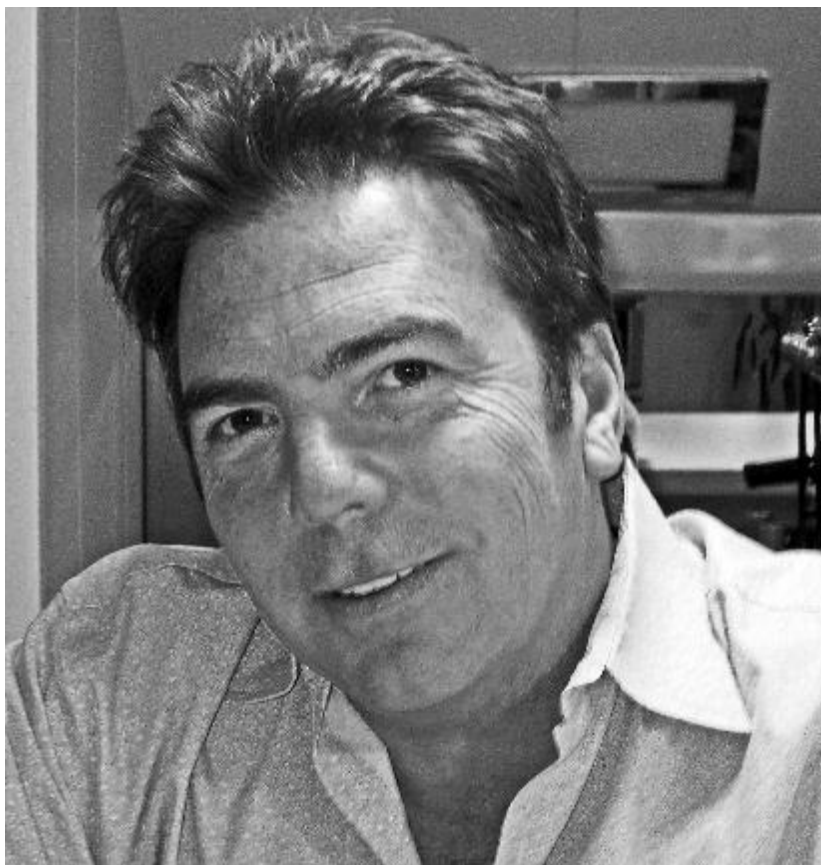
Michael Mendheim's success with *Mutant League Football* paved the way for his success in the industry but the game has always been where his heart is.

And at exactly the right time. Unable to tell if the game was headed in the right direction or not, the young Mendheim needed another critical pair of eyes, even if he had already proven he was capable of producing the game by himself. "I had played the game so much that there was no objectivity left in me. The game was fun to me, but it wasn't clear if it was really fun or not. We had semi-mixed reviews in the focus groups. Some people liked the game, others

didn't," he said. "There was nothing like it on the market at the time, so it was one big dice roll." Nelson (who went on to produce games in the *PGA*, *NBA*, *NHL* and *Need for Speed* franchises) was known to be a tough guy to work with. Demanding and sure of what he saw as the "EA way" to do things, Nelson kept the project on schedule and the young Mendheim on task.

"I remember being in Chicago and getting a call from a somewhat gruff, slow talking voice and the man behind the voice said, 'Are you Michael Mendheim? Good. [you have to imagine the voice is talking painfully slow]. I've been wanting to talk to you. I am Sam Nelson. I've just been assigned to *Mutant League Football* and am your new Executive Producer. I'm responsible for this project now and am trying to direct the team to do certain things. The team has informed me they will not do anything until I talk to you. So here I am, Michael. Let's talk.'

"It's so funny now, but when this call happened, 'Yikes!' I think I peed my pants during that conversation. Ha-ha. That was the beginning and the initial transition between us was not the smoothest. We locked heads on numerous design issues and fought back and forth about various features and mechanics," Mendheim continued. "At some point Sam took me golfing at Half Moon Bay. I think Sam wanted an out of studio therapy session with me and golf was the means to do this [neither of us are very good at golf]. I hit a shot that sliced and the ball landed a few inches from a cliff that stood a few hundred feet above the pounding Pacific. I went over to play the ball and Sam was standing right beside me. I remember saying, 'Hey Sam, all you have to do is give me one little nudge and your headache will be gone and then you can drive the product however you want.' Sam laughed and for a moment probably considered it, but thankfully he didn't and I'm still here to tell the story.

"Over time, Sam earned my respect and I'd like to believe I earned his. You have to remember, Sam had all the power. He could have squashed me like a bug, but he didn't. He listened to me and worked with me on the project even though he didn't need to in theory. Without Sam, the project doesn't get done. Without Sam, the project isn't as good. Without Sam, the project never gets a

television show. Was he a tough guy? Yes, absolutely, because he needed to be, but, he was also fair and really, really smart. Sometimes a project needs some friction, it needs fighting between different ideas and approaches to make the game better. This kind of friction is what produces diamonds out of coal. I'm grateful to have had the chance to work with Sam and he taught me a lifetime of knowledge about game development. I love that guy and would work with him again in a second."

With development over and the game then on store shelves, the game that no one saw coming, became a success. Critically-acclaimed and beloved by fans, *Mutant League Football* was an undeniable winner. While two decades later it's still considered a cult-favorite and one of the most unique games on the Sega Genesis, Mendheim ironically didn't know how the public was going to appreciate the game. "Someone handed me a GamePro magazine with the game review. I was afraid to read the review. Seriously, I didn't want to read it, but at the same time had to know and was relieved to see GamePro liked the game and gave it a strong review," Mendheim said. "More reviews followed and they were very good too. Then the game made the sales charts and ended up in the #1 slot. People liked it. We had a hit game. All that hard work paid off. It felt like a giant weight was lifted off of the team's shoulders. EA immediately put other mutant sports games into production. It was a really great time."

After the success of *Mutant League Football*, Mendheim deserved the respect of Electronic Arts, but didn't get it. The next game in the series, *Mutant League Hockey*, which also earned critical acclaim and is also loved by fans, was an even more difficult game to get through development. Citing EA's insistence to focus on games they could attach league licenses to and feature real players, the *Mutant League* series, even in the face of all of its success, just wasn't in the publisher's long-term plans.

"Their (EA Sports) goal was to be the 'real sports' company and create the finest sports simulations in the industry. *MLF* did not fit into that strategy [it was the bastard child]. EA made the right choice, that's for sure. Good for them. Bad for *MLF*," Mendheim said. "The hockey game was still about 12 to 14 months out from

being released when the decision was made. They told us if we could finish the game in six months they would ship it, if not, it would get killed. So we rushed a 14-month schedule into six months and managed to release it. They didn't support it; hell, the cover art is a rough comp. Shipping hockey was a very hard and difficult thing to do, especially knowing that the brand was DOA. I know what *Mutant League Hockey* was supposed to be and could have been, so I was always sad and disappointed with that project."

Even in the face of a rushed *Mutant League Hockey* and the lack of a sequel to *Mutant League Football,* the rarity of the game in stores and its unusual and addictive gameplay have cemented its spot as one of the most unique and fun games on the Sega Genesis. Even without an NFL license, *Mutant League Football* created a world you wanted to be a part of. Take that, John Madden, Joe Montana and every other pigskin game on the Sega Genesis.

"The game made them care about their star players. Seriously, we have people after 25 years who still remember player's names from the game," Mendheim said. "We made All-Star players very strong and important to winning, so if a star player died, it really hurt your chances of winning. Gamers took protective care of their star players in a nurturing way. They benched them so they could rest and regain health. They held them out of the game with a lead to ensure they would survive, etc. If a game can create an emotional bond between a user and a character, it's a magical thing. I think *MLF* did this in a meaningful way. This is not an easy thing to do in a sports game.

"The game made people laugh. When playing against friends, you're trying to kill their star players, while they are trying to kill yours. There is laughing and gloating on one side and screaming and yelling on the other side and this is going on, back and forth throughout the entire game [and on almost every play]. Killing a key all-star player could turn around the game—so you're never really out of competition. There's always the chance that you can create a forfeit and take home a win even though the score may be 65 to 0. Then you add in all the unpredictability of gameplay, the humor, sarcasm and it just creates a fun experience for everyone involved."

Years after *Mutant League Football* and *Mutant League Hockey*, Mendheim worked on teams responsible for games the likes of *Def Jam Icon*, *Army Men* and *Battle Tanx*. But, in his heart, mutants on the gridiron has always been his most important project. That's the reason why he's always felt it deserves a modern-day version. Although *Mutant League Football* was eventually made available on the PlayStation Portable in 2006 as a part of EA Sport's Replay compilation, alongside *Desert Strike* and several other 16-Bit classics, fans still wanted more. A testament to the game's ability to draw a dedicated fan base and be more than just a football game, it even spawned a TV show that ran for 40 episodes, from July 2, 1994, to February 24, 1996, as well as a six-issue comic book run.

That's why anyone who thinks that the game and franchise was just a cult-hit is wrong and that's exactly why Mendheim still believes he has unfinished business. Over the last few years, Mendheim and his team have been hard at work on *Mutant Football League*, the spiritual successor to *Mutant League Football.* Currently in development for Steam/PC, with plans to release on the Xbox One and PlayStation 4, Mendheim is ready to bring the version of football EA Sports gave up on, but fans begged for, back for good. With modern visuals and odes to the humor and gore that made the original a cult-classic, *Mutant Football League* is *Mutant League Football*, on steroids. In February 2017, Mendheim and his team launched a KickStarter to garner funds for development and in less than two days raised over $60,000. Make no mistake, the series is back and better than ever.

Michael Mendheim's latest creation, *Mutant Football League*, is inspired by the love thousands of gamers still have for the game that jumpstarted his career.

"EA owns all rights to the original *Mutant League Football & Hockey* game and the television show is owned by Warner," Mendheim said. "So all teams, characters, logos and audio visual components from that game or television series cannot be in our game. The game we are making is very different than the original, it is going to look, sound and play differently. This is a brand new game after all. However, it's very important to us [and to our community] to maintain the key elements that made people love the original. People liked the original games' political incorrectness, humor, sarcasm and fun of obliterating your friend's players. These are all things we can and will keep intact from the original.

"We've had hundreds of fans of the original game play this new game at shows like PAX West and GenCon and everyone who has played has given us a big thumbs up. Our goal is to deliver on the community's expectations for what this game needs to be. This is their game."

For More Information on *Mutant Football League*, head to
www.MutantFootball League.com/ or on Facebook at
www.facebook.com/MutantFootballLeague or on Twitter
@MutantFootball.

Petri Järvilehto, *Max Payne*

From the Basement to the Norse God of Noir

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The early 2000s were a time of creative growth in the video game industry as the console gamers that grew up jumping down pipes with Italian plumbers and running through loops with blue hedgehogs craved something more mature. The problem was developers didn't have concrete proof that games on consoles were ready to take the steps needed to attract an older audience. However, thanks to the success of games in the '90s the likes of *Doom, Resident Evil, Mortal Kombat* and later *Grand Theft Auto,* it was obvious. The industry needed to satisfy a huge community of gamers that were done with the kid stuff. Although it was originally released on the PC, Finnish game developers Remedy Entertainment's 2001 gritty action-noir *Max Payne* changed console gaming forever. Fueled by its hard-boiled story, comic book narrative style, bullet-time game mechanics and awesome main character, *Max Payne* went on to sell 7.5 million combined copies on the PC, Xbox and PlayStation 2 and helped establish the small developer as one of the best in the industry.

But before the success that led *Max Payne* to a pair of sequels, a major motion picture and eventually the *Alan Wake* series, Remedy was simply a team with an idea. Led by lead designer Petri Järvilehto (who would go on to play an influential role in the *Angry Birds* and *Alan Wake* franchises) and writer Sam Lake (creative director for 2016's *Quantum Break* and writer for *Alan Wake*), Remedy knew they wanted to do something completely different with *Max Payne*. In just the first minute of the game, it's obvious this is going to be an eclectic experience. As Payne stands on top of a skyscraper and snow falls in New York City, the game casts a noir feel that immediately separates itself from every other third-person shooter available at the time. "They were all dead," Payne says in the game's first line. "The final gunshot was a final exclamation

mark to everything that had led to this point. I released my finger from the trigger and then it was over." It was the type of moment that made you pause the game and say "wow." Nothing against the visuals or gameplay engine, which were more than acceptable at the time of the release, but Lake's writing is one of the elements that made *Max Payne* truly special and practically timeless.

"Sam's writing is something that certainly elevates the game to a whole different level and establishes Max as a character that people love even a decade later," Järvilehto said. "But most of all, I think some part of the passion of the team is always reflected in the final product. We were driven to get every possible detail right. We pushed ourselves really hard to get the game into shape and I think the amount of how much we cared about getting it right shows when playing."

The game then takes the player through the events that drove the former NYPD officer to a life of vengeance and it's hard not to get hooked. Using classic noir techniques that made writers the likes of Frank Miller and James Cain legends, Lake's story and Järvilehto's design execution makes *Max Payne* feel like a motion comic with loads of testosterone early on. It's deep. It's emotional. It's almost real. At times, it feels like Lake's writing was almost too good for games. Years later, it's obvious he set a new standard and one that was in fact inspired by his appreciation of the art form. He wanted gamers to expect more and after the game's release, that's exactly what the case became. The fact that motion-capture technology was not an effective option back then made the comic-noir style of the game and wonderful writing that fueled the narrative a perfect choice. As Payne enters his home and the story truly begins to take shape, we get a taste of the type of wordplay and pacing that follows. "The sun went down with practiced bravado. Twilight crawled across the sky, laden with foreboding." With this noir approach, it makes sense that the first time you see Payne on that rooftop to start the game he looks miserable. He's got nothing to be happy about. His wife and baby are dead. The person he once was is gone as well. With this plot firmly established in minutes, you know *Max Payne* isn't going to be a happy tale.

"We started working on the game with the concept of doing an

action game set in New York with a cop as our lead hero [with the working title *Dark Justice*]. It felt like a good classic setting that gives plenty of depth," Järvilehto said. "Once we started developing the character, pushing him overboard [a framed fugitive with a traumatic past] seemed like a great way of taking the stakes higher and also gave us a good match with the player being mostly alone, always hunted by both good and bad guys (which obviously had good gameplay ramifications—at the time, building up believable NPCs was not that viable an option]. When working on the high concept we wanted to find a positioning that most of the other action games were not doing. At the time, the majority of shooters were all sci-fi, so going for the gritty film noir felt like a position that nobody else owned in gaming at the time."

Petri Järvilehto's success as a creator truly began to take shape after the *Max Payne* series. He is now considered a pioneer in iOS game development.

While Järvilehto's affinity for early John Woo films (*Hard-Boiled, Bullet in the Head, The Killer)* played a role in the game's combat engine and the revolutionary use of Bullet Time, which slowed down the game at certain points to put added focus on the game's gunplay, Lake looked to classic noir icon Humphrey Bogart as a reference point and somewhere else completely unexpected to build the game's story. "Sam is a big fan of all kinds of mythology—and Norse mythology was one of his favorite subjects," Järvilehto said. "In writing, it's often useful to pick a single mythology as the basis and lean on that to build the framework. I think it creates a wonderful layer of meta on top of everything else, and there's much more depth than initially meets the eye. Woden [i.e., Odin] with his eyepatch and similar references are things that most people miss on the first time around, but once you know what to look for, it becomes obvious."

To accomplish this feat of a noir-inspired cop drama was no easy task. But Remedy, fresh off their last game, *Death Rally*, a sort of *RC Pro-Am* meets *Twisted Metal* combat racing experience, were hungry. They wanted the game to be a hit—almost as bad as Payne wanted vengeance for his butchered family. "We had a very small team that was passionate about the game. We were young, none of us had ever built anything even close to the ambition level that we were working towards but at the same time. I don't think anyone of us expected the game to become so big when we started," Järvilehto said. "The first game took over four years to build and towards the end we were all working 16–18 hours per day—basically we'd just head home in the evening to get a bit of sleep and then come back in the morning and continue where we left off a few hours earlier. During the final run, we knew that we only had a couple of months before the game would go gold and just had to push to still improve/fix/iterate on every aspect to make it better."

It also helps that Remedy understood the famous mantra from the Dirty Harry series: "A man's got to know his limitations," better

than anybody. Far from being an established developer in 1997, when the work began, they knew they wouldn't be able to pull off as lavish production values as other games. That didn't stop them from finding ways to make the game unique. Thanks to Lake's signature storytelling and the now iconic Bullet Time mechanics, the seeds were already in place. "The reason we went with comic book style narrative sequences was primarily because we didn't have the money to spend to do proper cinematics and motion capture. It was much cheaper to just do 2D art, based on photos," Järvilehto said. "The entire game was really started with us developing it in a basement [we didn't have money to rent an office] and mostly built on a very shoestring budget. The comic book approach ended up working great though and became quite a signature thing."

The team behind *Max Payne* went from a group of indie darlings to one of the best third party development companies in the world.

Another testament to Remedy's creativity and versatility during development was that the team even found a way to take common gaming clichés and put their own stamp on it. "During the development, one of the things that we wanted to do was to build an NPC escort mission to increase gameplay variety. Now, everyone hated escort missions at the time, because our AI was so limited and you'd generally spend most of the time just trying to get the NPC to walk through a door or you'd lose sight of the NPC that you're supposed to escort and trying to play any stealth was spoiled by the AI doing stupid things," Järvilehto said. "When we were brainstorming about how to make this not suck, Anssi [Hyytiäinen, one of the level designers] comes up with the crazy idea of, 'what if we'd put the NPC into a massive inflatable bright yellow duck suit' and go the other way. Turn the tables and make it a joke on how visible, loud and hard it was to for the NPC to even just walk.

"Once we had a prototype [which immediately made all of us laugh, it was crazy and the gameplay worked], Sam wrote the escort sequence for the game with Max finding Vinnie Gognitti dressed up in a huge inflatable Captain Baseball Bat Boy suit with explosives rigged into the suit and every time he takes a step, his big feet keep 'squeaking'—and the suit is so big, he can't even walk through the doors. Still one of the funniest escort missions ever and a good example of taking a weakness and finding a way of turning it into a strength."

Their ingenuity and craftiness helped, but the small development team was challenged from the start. The fact that they set their standards incredibly high could have been a hindrance, but Remedy continued to push forward. In spite of being anything but a household name at that point, their work ethic attracted plenty of support. "It was a highly iterative process. We built parts of the game, then took a look at them, came to the conclusion that it wasn't good enough yet, then built them again," Järvilehto said. "Scott [Miller] & George [Broussard] from 3D Realms [the development team behind the *Duke Nukem* and *Shadow Warrior* series] were instrumental in mentoring and coaching us when building up the IP and developing the game. Having a 'developer as publisher' early on made a huge difference—they genuinely only cared about the quality and everything else was secondary. The

game changed vastly through the process. As we kept building up the technology and it enabled new things we constantly went back to the old stuff and redid it. The story kept evolving through the development and I think we built about seven different versions of the first Subway level during the development." But even with help of game veterans and the passion that comes from knowing and trusting your own abilities, there was always moments of insecurity. At the same time, their ability to change their plans on the fly and create something special shined through and added another key element to the game, even if they didn't know it at the time. "I think all of us were at some point or another doubting whether we'd ever finish the game," Järvilehto said. "Something like six months before shipping, we actually cut about 25% of the level content that we had built environments for [we had a big sidetrack with Max making his way into Punchinello's Manor etc.], but we simply couldn't get all of the gameplay done polished in time, so those had to go. Then we started having issues with the game being too short, so we added the "Blood Maze" to the dream sequences (which some people love, some hate, but definitely made an impression) to both enable us to build up a bit more depth as well as create new content that didn't require that much gameplay scripting."
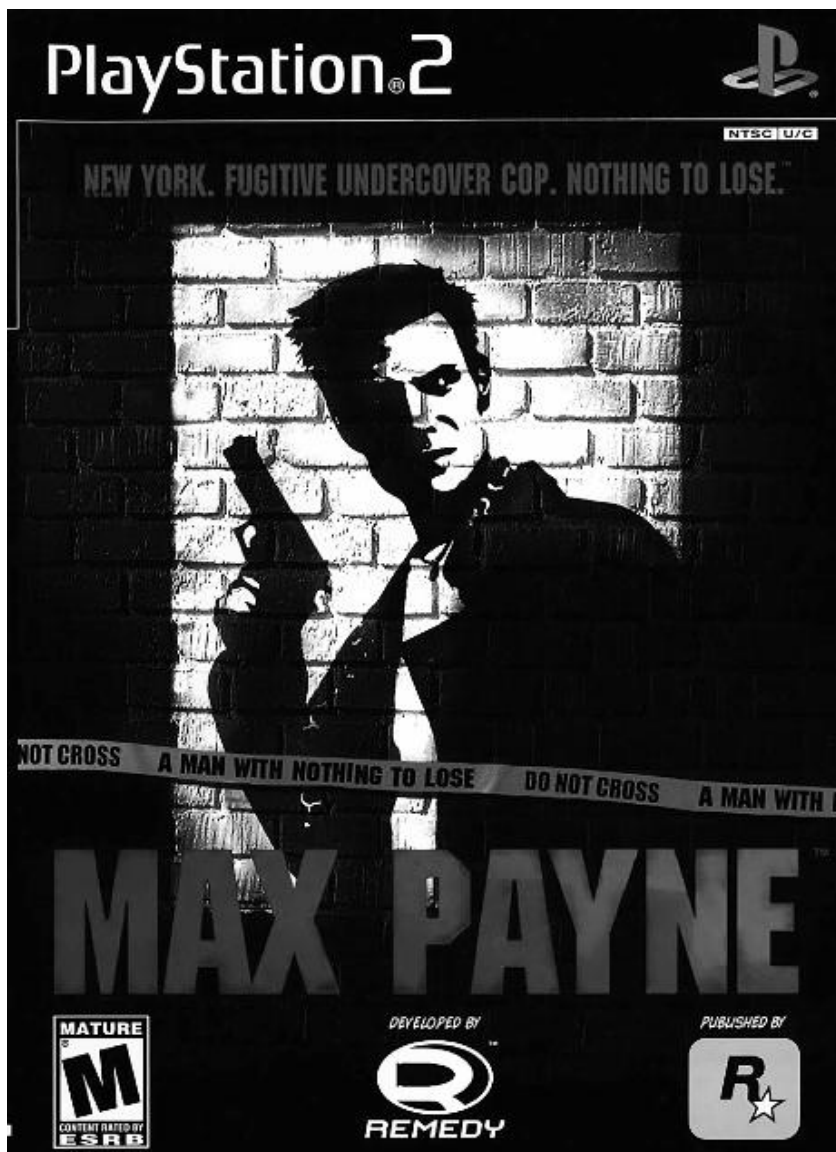
Max Payne's success helped Remedy establish itself as a developer but continued to make Rockstar one of the grittiest publishers in the business.

Once the game was released, following several best of E3 2001

awards that earned it plenty of hype and write-ups, Järvilehto, Lake and the rest of Remedy had a bonafide hit on their hands. "So we kinda knew we had something special in our hands going into the launch. At the same time, we had no idea what would happen. We'd never shipped a big game before," Järvilehto said. "Our previous game [*Death Rally*] had sold about 100K units, which we considered to be pretty successful at the time. A couple of months prior to launch I was psyching the team up with thoughts on how we could even sell 300 or 500k copies if we get the game just right.

"After the launch, we were blown away by the reception. Max hit #1 worldwide and the critical acclaim was great. We started working with Rockstar on the console versions right away and towards the end seeing the huge amount of 'Game of the Year' awards that we won was amazing. We didn't really comprehend what was going on, though. We were already super busy working on *Max Payne 2* and I think it probably took over six months for the fact that we created a hit game to properly sink in was 'awesome, let's do it again.'"

Less than a year after the release of *Max Payne*, Remedy, then working on *Max Payne 2*, sold the rights to Rockstar Games for $10 million and 969,932 shares of restricted common stock, in addition to certain future development incentives. The sequel hit shelves in 2003, garnered critical acclaim and sold over a million copies on the Xbox and PlayStation 2. Five years later, Mark Wahlberg and Mila Kunis starred in the *Max Payne* film, which despite lackluster reviews, grossed $85.8 million on a $35-million-dollar budget. Despite no longer being affiliated with the game as Rockstar took over development, *Max Payne 3* was released in 2013 and sold almost four million combined copies on the PlayStation 3, Xbox 360 and PC. With three successful titles and a profitable film over the course of a decade, it's hard to classify the series as a cult success. From the basement to the big screen, Remedy's noir franchise is one of the most celebrated franchises of the last two console generations. Because of that, it's got to be considered a classic on the PC, PlayStation 2 and Xbox.

"Max is such a wonderful character. He's a unique [almost] anti-hero and it becomes pretty evident for the players that he's actually

going through some very rough times, which gives him much more depth than your typical action heroes," Järvilehto said. "Just as important, the combination of Bullet Time was something unique that really hadn't been done before—at least anywhere to the level we executed it. Having time slow down and bullets drift gracefully through the air—while you're in control—was a completely fresh experience."

Järvilehto's experience at Remedy and with the *Max Payne* series played an influential role in his future success, and he is now one of the most important voices in mobile gaming. It's something he'll never forget. "It was the first 'big' game that I've worked on, so both the game and the 'Seven years of Payne' that we spent working with Max will always have a special place in my heart," Järvilehto said. "He was a great guy to work with, even if a bit dark and brooding at times."

The trials and tribulations throughout the development process of *Max Payne* were ultimately a learning process that prepared Järvilehto and Lake for the future as well. Järvilehto's ability to work with potential disasters and gameplay changes on the fly with *Max Payne* made him a hot commodity in the industry. Although Lake is the noir guy and scribe, over time, Järvilehto became anything but a slouch with a pen and piece of paper. His time with the series gave him that gift as well. "*Max Payne* is probably best remembered in a seedy bar somewhere in New York," Järvilehto said. "While you're sipping a cheap whiskey and it's dark and raindrops are playing the drums on the windowsill… and somewhere in the distance a lonely saxophone or a cello starts playing a brooding theme."

Mike Skupa, *Bully*

Jimmy Beats World

● ●

Jimmy Hopkins is probably one of the most unlikely heroes in video game history. He doesn't have super powers. He isn't particularly good looking, either. If anything, he's one of the most human video game characters ever created. But thanks to a wonderful story, score and gameplay engine, *Bully* belongs in Rockstar games' Hall of Fame next to titles the likes of *Grand Theft Auto* and *Max Payne*. Equally as innovative and controversial as those aforementioned titles, *Bully* gained a ton of mainstream press heat, well before it was released, for a variety of reasons, that if anything, cemented how special of an open-world title it was and still is. While it would go down as one of the most celebrated titles in the Rockstar library and is an absolute success, it's a title that's misunderstood by those who don't "get" video games. More a celebration of adolescence and the growing pains of your teenage years, *Bully* is anything but offensive and foul. If anything, it's one of the most realistic and heart-warming adventure games ever made—in its own way, of course.

At the same time, it's a game made possible by the innovation in the industry before its release. In 2006, video games, as they've done throughout their existence, continued to leverage new technology. A game like *Grand Theft Auto 3* proved there was a huge demographic for open-world games. Putting you in the shoes of a character and allowing you to make your own decisions in a video game is intoxicating and by the end of the '90s and beginning of the new millennium, these games became increasingly popular. All of a sudden, games the likes of *Elder Scrolls* had just as big a following as *Super Mario*. And why wouldn't they? Who wouldn't want to feel like they're someone else or somewhere else? That, in essence, describes *Bully* best. It's a game that makes you feel like a kid again in school, one that will make choices that will affect your

life forever. But unlike your childhood, there's a reset button. You can be anyone you want to be.

That feel-good notion of teenage hi-jinx was far from cemented with the general public early on, however. Trailers for *Bully*, released months before the game hit shelves, pissed off a ton of parents and advocacy groups for that reason. It's like they forgot about all the times they spent as a kid doing the things shown in the trailers, from shoving people's heads in toilets to making out with people. Those visuals and the notion of same-sex kissing in the game were enough to at least try to cut the game's legs off before it even stood up for the first time. And of course, with the plethora of media attention, the politicians came. Looking for a way to endear himself as a family man to his supporters, activist Jack Thompson lobbied hard at one point to have the game banned from stores in Florida, but failed to do so. Members of the Labour Party in the United Kingdom also tried to get the game's rating reclassified so only gamers over the age of 18 could buy it. Like Thompson's attempt to hurt the game, the game was never reclassified.

"As a development studio, we were pretty sheltered from that component. The concern of controversy was always a major part of development, but by that point, we were relatively confident in what we intended to ship. Since there wasn't a lot of pre-release press, we felt a lot of that backlash was based on assumptions, especially given the game's title," one of *Bully's* Design Directors, Mike Skupa said. "We certainly had to be very thoughtful about what went into the game right up until the end. More than anything, it gave us the drive to make as good a game as possible so that people would take it seriously."

Instead, all the mainstream press worked to Rockstar's advantage. Although *Bully* isn't as raunchy or naughty as *Grand Theft Auto* or *Max Payne*, it's got a ton of heart and arguably the best story of any Rockstar game. At the same time, it can be as gritty as you want it to be. Because of that, it's an engaging open-world adventure that never lets up. That has everything to do with the story—an awesome one that combines elements of The *Breakfast Club*, *The Catcher in the Rye* and thanks to its score, *The Dead Poets Society*. Forced to go to a private school, Bullworth Academy, after his

mother and new father decide to go on a year-long honeymoon, Jimmy Hopkins is thrust into a brand-new world. He's got to make friends, go to class and essentially find his place in the school's community. Sound familiar? We've all been there before. This is why *Bully* instantly connects you as a player and makes the game almost impossible to put down at times. Just like your memories in school, the relationships and experiences you endeavor and persevere through in *Bully* will be memorable ones. "It had a very timeless feel in its approach," Skupa said. "That sense of wonder you only get from being a kid."
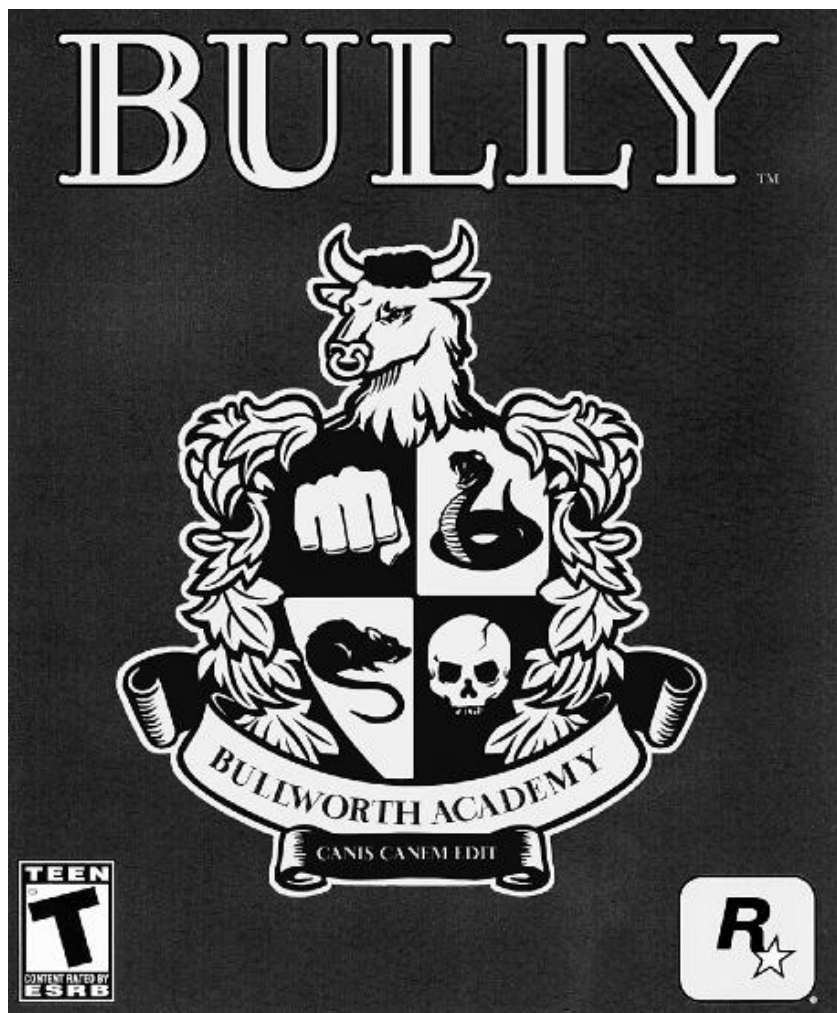
Bully is easily one of Rockstar's biggest successes outside of the Grand Theft Auto series.

While he's not an awful kid, Hopkins' rough around the edges. He's not scared to speak up, fight or tell authority figures what he thinks. For that—and well for being the new guy, he's got a tough go of things at the school. With a variety of cliques around as well including preppies, jocks, nerds, greasers, townies and bullies, Hopkins not only has to worry about the usual assortment of duties

many high school students have such as passing his classes and making friends, he's got to make sure he stays safe as well.

"It has a story and atmosphere that is a little bit different. Technology in gaming accelerates at such a rampant rate, which makes it hard for many genre games to last the test of time," Skupa said. "Looking back, there are certain design decisions I'd probably change, but they wouldn't necessarily impact the game's charm. Many of those imperfections probably added to it."

Mike Skupa's resume is filled with solid games across several platforms.

Make no mistake, this wasn't exactly Rockstar's "usual" game. This was something very much different. Rockstar knew they had to do things right and from the start of development, *Bully* had all the pieces in place. Dan Houser and Jacob Krarup's story is a special one and the team behind the game was one that worked incredibly hard to deliver something unique and different from the Rockstar brand. Skupa himself was eager to prove himself as well. Coming off of his successes with Radical Entertainment on the PlayStation and PlayStation 2 via *Jackie Chan Stunt Master* and *The Hulk*, Skupa was hungry to be a part of something even bigger.

"I was good friends with a bunch of the guys at Barking Dog," Skupa said. "I always wanted to work with them, but the project or timing never lined up. Up until *Bully*, the team mainly focused real-time strategy games. After being purchased by Rockstar, they needed someone with a lot of console/action experience for a new title. I loved the idea and jumped at the chance."

While it's got a great score and is visually appealing, the consequences behind all of your actions is where *Bully* gets interesting. Using in-class mini-games as a way to increase your verbal skills to help sway adults when you get into trouble, or to acquire items such as stink bombs and itching powder to get Hopkins out of some sticky situations, *Bully* makes everything you do count. Like the classic Sum 41 album, it's all killer—and no filler. The painstaking effort in development also ensured that every character in the game looks different and makes you feel a part of something real as well. The day and night cycle as well as the ability to travel around the town where the school is located spiced up the missions and overall gameplay variety enough to make the world feel even larger. Because of this, *Bully* was a game, just like *Grand Theft Auto*, that you could spend hours at a time playing. But unlike *Grand Theft Auto*, there was so much more accountability.

"My favorite part of the gameplay was the freedom of being a mischievous kid in an environment filled with unique living characters," Skupa said. "You could run, hide, chat, or get into a tussle on or off the mission with varied outcomes and repercussions. At the time, all that variety was quite ambitious in an open world

setting. The team really banded together to make it all happen."

To the displeasure of all of the people that tried to get the game taken off of shelves, *Bully* was never about you actually being a miscreant. It was about you finding your place in a world you never felt a part of, but felt compelled to save. Hopkins grows a lot as a person throughout the game and has plenty of choices to make. Like so many other classic games, Hopkins' choices become your own. At times, you feel like you've been in his spot before. And that's because you have. Unless you've been homeschooled or raised by wolves, you remember what High School was like. The focus on image, the cliques, the classes. *Bully* is able to take all of that sentiment and turn it into something more than tangible and provide an experience you'll want to run back to. *Bully*, in a word, is enthralling, a game that forces you to concentrate on a variety of different gameplay elements at play and marry them in order to advance the story. Getting all of that to happen however from a development standpoint was a far from easy task.

"The development of the project was pretty intense from the beginning—it was an exciting and challenging ride," Skupa said. "On my first day at work, some key staff got moved over to another team to help out a project that was further along. The turnover from that day forward was far more than I have ever encountered. All that change does wonders to bring you out of your comfort zone —people really had to bond together fast to make things happen."

It is from here that some of the most magical moments of the game's development were born. "I learned that some of the best ideas come from tapping into your own personal experiences," Skupa said. "Previously, I viewed video games in a much more fantastic light. Some of the best ideas and missions in *Bully* came from actual experiences and people we encountered as kids. It really changed me as a designer."

However, in spite of the team's dedication to the project and their willingness to connect to the source material, they went through quite a few different variations in look and feel before they nailed down something they felt they could stick with. "The visual design of the main character changed dramatically through development," Skupa said. "Previously, he bore an uncanny resemblance to

Jimmy's nemesis, Gary. Tonally, the game was initially much more cartoony in look and attitude. The overall style was a long-debated topic for the first half of development. Given that we were dealing with such sensitive subject matter, it was a challenging topic for the team. Beyond the visuals, everyone had their own experiences at school, which made for many differing opinions on the game's attitude. It was a long process, but many influences played their part in giving the game its identity."

The same thing goes for the game's iconic score, which wasn't always set to be the instrumental masterpiece it ended up becoming. "After a few attempts at licensed tracks [one build had Jimmy carrying a steampunk looking music player], it became clear that we had to use an instrumental score," Skupa said. "Beyond the opening track, I recall this starting with references based on factions, locations and mission styles. What Shawn Lee composed blew everyone away. It tapped into all these varied references, but had such unique flavor. Afterward, the audio team from New York worked very closely with the design department to map out the interactive music—they would play the game together day and night. In addition to having such a huge impact on the game's mood, the music became one of the most important pieces of feedback for gameplay."

But despite all of the progress and fine-tuning from the team, the project was one that was never exactly a sure thing. "There were a lot of hurdles for the development team to overcome. It was our first open world game, which was a relatively unexplored genre at the time," Skupa said. "The ambition of a new open world IP with a very small team size made it very difficult to accurately plan expectations. Certainly, not an easy game to schedule. The possibility of cancellation came up a few times, but there was always this gut feeling that it was going to make it. It had to—we had put so much into it."

Jimmy Hopkins is a great character because we've all been in his shoes before.

That long emotional ride played some mind tricks on Skupa and the rest of the team as well. "The office décor started off like a funhouse filled with creepy mannequins, velvet paintings, and ventriloquist dummies," Skupa said. "With development happening around the clock, the physical state of the studio morphed alongside it. By the end, those dummies were creeping out of manmade holes in the walls and other shadowy places around the office. There were a few late nights where I feared we were being haunted."

In the end, all the time and polish to every facet of the game were worth it. In addition to spawning a remaster in the form of *Bully: Scholarship Edition*, the game ultimately went on to sell over two and a half million copies. Looking back now, it's obvious to see that the game was destined to be something different. That has everything to do with the fact that Skupa and his team never backed down from the challenges laid before them. "The initial reception was great to experience. Those first few reviews can be quite nerve-wracking as a developer," Skupa said. "Nowadays, a lot

of games go through external focus group testing and mock reviews to help tweak and polish their game in the final months. We really had to rely on our own confidence to get us through until the reviews came."

Going on to serve as Design Director for the 2012 hit *Sleeping Dogs* —which also sold over two million copies across a series of console releases, Skupa has established himself as one of the most unique and talented minds in the industry today, cementing *Bully* in video game lore. In the end, it's something so much more than what so many concerned parents or idiotic politicians thought it was. Although a celebration of tomfoolery and wit, *Bully* will be remembered for its unique soul far more than any of the jokes Hopkins plays in it. "*Bully* will always have a unique place in my heart," Skupa said. "It was a tough and exciting project, but we overcame it. It's definitely the most personal game I've ever worked on. I'd love for *Bully* to be remembered for whatever unique experience it provides to the player. Shortly after playing it, my nephew told one of his friends 'Hey, don't be a bully!' and a group of them cheered. That meant more to me than any accolade."

Ryuichi Nishizawa, *Wonder Boy in Monster Land*

Countdown to Major Tom-Tom

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Originally released in the arcade in Japan in 1987, Ryuichi Nishizawa's *Wonder Boy in Monster Land* is one of the most influential early Sega games not named *Sonic the Hedgehog, Kid Chameleon* or *Alex Kidd*. An ambitious arcade action/RPG, its Sega Master System port introduced better sound to the already smooth gameplay, making it an iconic title on Sega's eight-bit console.

However, it's a unique licensing deal between Nishizawa's Keystone Entertainment, Sega and Hudson Soft that ultimately paved the way for the game to be even more memorable. Simply put, Nishizawa's work has been covered almost as much as Frank Sinatra's. Even if you've never played any of his games before, if you grew up on the Sega, Super Nintendo or Turbo Graphx-16, chances are you've been affected by his work in one way or another. Allowing Sega and Hudson to use the gameplay engines and code in the *Wonder Boy* series in their own unique ways, Nishizawa's creation has lived on in several different incarnations on a variety of consoles. The original *Wonder Boy*, released the year before *Monster Land*, was released on the Sega Master System as *Wonder Boy*, but with a re-skinned main character, Hudson Soft released *Adventure Island on the Nintendo Entertainment System*. Ironically, many gamers are more familiar with *Adventure Island*, which also outsold Nishizawa's original creation.

For *Wonder Boy in Monster Land*, Hudson released the game on the PC Engine (Japan and France's version of the Turbo Grafx-16) as *Bikkuriman World* (based on the anime series). Tec Toy, a company that distributed and licensed Sega products in Brazil, released the game on the Master System as *Mônica no Castelo do Dragão*, once again re-skinning the main character, this time to resemble characters from a Brazilian comic book series. Jaleco, the Japanese

developer known for the *Bases Loaded* series on the Nintendo Entertainment System, released a "modified port" of the game in Japan as *Saiyūki World*. The game later had a sequel, *Saiyūki World II*, which was released in North America as *Whomp 'Em*. Activision even released their own version of the game on their home computer systems, titled *Super Wonder Boy in Monster Land*.

Some developers would have misgivings about seeing their work ported in so many different ways, but Nishizawa sees it much differently. "I think that it helped the legacy of the game," he said. "It was able to focus on the power of the overall product. It ended up that all of the products became popular. It ended up making a lot of people happy and ultimately contributed to the history of the game."

Even today, the series continues to be developed as ports on the Wii, PlayStation 3 and remakes on Steam, Xbox One, PlayStation 4 and the Nintendo Switch have been released or are in development. A remake of *Wonder Boy III: The Dragon's Trap*, from indie-developer Lizardcube, titled, *Wonder Boy: The Dragon's Trap*, recently hit current generation consoles. *Monster Boy and the Cursed Kingdom*, a brand-new game in the series from indie developer FDG, is also currently in development as well. Both games have Nishizawa's cooperation and *The Dragon's Trap* even has a unique feature that allows gamers to switch between the remastered and original versions of the game at any time. It also supports the password saves from the original game. With the revival of his creation going through a regenesis of sorts, Nishizawa has plenty to be excited about. "FDG is a company making a work of high quality that they are taking carefully," Nishizawa said. "They are making the new *Wonder Boy* with their interpretation. I respect it and I am interested in the view of the world they have rebuilt very much."

The team behind the Dragon Trap remake saw first-hand how special a developer Nishizawa is. Affected by his work since their youth, getting an opportunity to work him was a dream come true for them. "He was always a kind and helpful person. At the time we presented him our first pitch for the game, it was just Ben [Fiquet] and I working on the game, so of course we were pretty terrified showing him our work," Lizardcube's Omar Cornut said. "He was

very supportive and from that point we knew the project would happen. We only started looking for a publisher once we had his go on the project. It was fun meeting him in Kyoto. At that time we hadn't showed him the retro features because we wanted to see his live reaction. He trusted us fully for the project and knew from the early prototypes we'd do something he would be happy with."
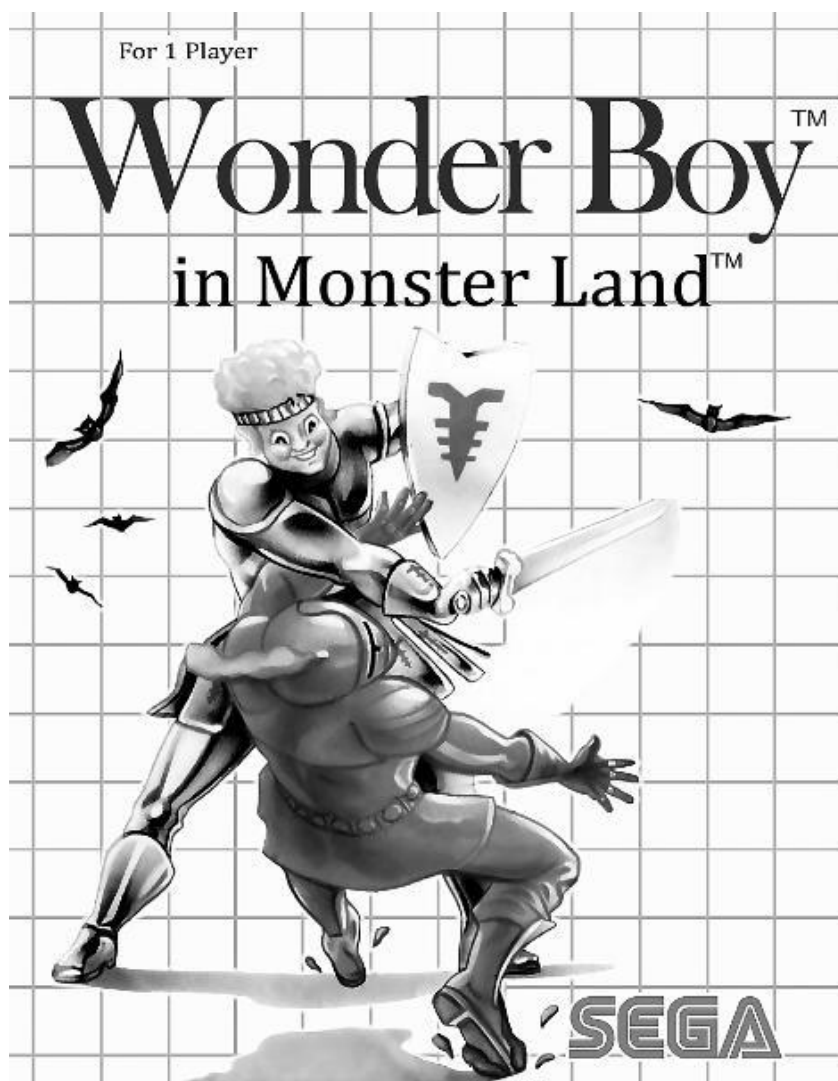
Wonder Boy in Monster Land has been remade by a variety of different developers, but at its heart is an arcade gem.

One of the reasons for all of the ports and recreations of the *Wonder Boy* series is its accessibility. That has everything to do with the fact that it was originally developed as an arcade game. It had to hook people fast or else they'd stop throwing quarters in. Unlike many RPGs of the time that forced the player to experience the game for hours in order to get immersed, the story here is easy to grasp and one that'll be instantly engaging to anyone who plays RPGs. The game takes place in Wonder Land, which was once a beautiful place. That was until MEKA dragon and his minions destroyed it and turned it into Monster Land. Desperate for a hero, the people summoned Tom Tom, who once defeated the evil king as a child and saved Tanya (in the original game) and brought peace to the land. The only one who can beat MEKA dragon, Tom Tom is given a sword and a potion from the mayor and must now do the impossible, again.

Virtually naked at the start of the game (something Nishizawa admitted he thinks is pretty cool) Tom Tom has to become a hero all over again, picking up items, weapons and armor to aid himself in his quest. Like any great RPG, customization is an important factor, but with plenty of combat, quick reflexes and ability to fight are paramount. Unlike the original *Wonder Boy*, which was more of a platformer designed for the arcade, *Wonder Boy in Monster Land* was something completely different. An RPG for the arcade, it was incredibly unique for its time.

"*Wonder Boy in Monster Land* is an arcade game," Nishizawa said. "The arcade games of those days had to satisfy a user in short time. However, we developed a game assuming someone would be playing for a long time. We did not know whether this would be received well in the market or not. It was our biggest challenge. Ultimately I think we developed an arcade game that lacked in flash, but had a very creative idea behind it."

Released the same year as *The Adventure of Link*, *Wonder Boy in Monster Land* has consistently drawn comparisons to that game for

the simple fact that they are side-scrolling action/RPGs that played well. Kind of the Yin and Yang of the '80s action/RPG genre, thanks to their releases on Sega and Nintendo consoles, they're almost destined to be discussed in the same breath. However, while both did a ton to stretch the RPG genre to new and different directions, they couldn't be more different. Nishizawa's approach to game development was an obvious factor in the game's feel. "If the game's balance is bad, the player cannot be absorbed in the world of the adventure," he said. "In *Wonder Boy in Monster Land*, I think that a player was easily absorbed."

Simply put, what *Adventure of Link* was able to do on consoles, *Wonder Boy in Monster Land* did in the arcade—and then in consoles. Another thing that makes *Wonder Boy in Monster Land* different is its uniqueness and accessibility. That was Nishizawa's intention all along. "*Wonder Boy in Monster Land* is designed in a way so that even the person who is weak in an action game can enjoy it," Nishizawa said. "Because the chief character grows up [throughout the course of the game], the action of the player becomes easy to succeed. I think that element of the game was liked by many people."

Truth be told, the game has little in common with any other action/RPG of the era. *Wonder Boy in Monster Land* is so much more of a mystery than your typical arcade game. Although transparent in approach, it's tougher than your average arcade game. While shops are clearly marked at the beginning of the game, as you progress, you have no idea what's behind a door, making proficiency in combat that much more important. It's hard to hide if you're low on health and towards the end of the game, many shops are hidden completely. As a result, the game is a difficult, but satisfying adventure that defies the standard gameplay conventions of the time period. The fact that the game was originally released in the arcade and has so many different versions out there make it just as important a game as *The Adventure of Link*.

If you've ever played the original *Wonder Boy*, playing *Monster Land* feels like an entirely different series. In a way, it is. While there are platforming elements in *Monster Land*, the skateboarding and speed elements were gone, replaced with a deeper story and RPG

gameplay. The biggest reason why it plays unlike any arcade game of its era is because its main inspiration wasn't an arcade game at all. "After having finished development of *Wonder Boy*, we got absorbed in *Wizardry* on the PC," Nishizawa said. "We played *Wizardry* every day, every day, every day without working. And we hit on one idea. That's when I decided I wanted to express the fun of *Wizardry* in the form of an arcade game."

Designing an RPG for the arcade is no easy task, but the humble Nishizawa had his mind set on delivering something memorable and took development in stride. With a clear idea of what he wanted to do, he had no problem taking what he learned from the original game and turning it on its head for something completely brand new. In a day and time when game sequels were rare, Nishizawa's goal to take the series in a brand new direction was a bold one. "Technical problems always happen during game development," Nishizawa said. "I learn something new whenever I make a game. Even today that changes. What did I learn about myself during the course of this game? That's a difficult question. I learned that I was better at level design than other people. I also learned that game development was something I could really get absorbed in."

Understanding that the arcade format could hurt the RPG elements of the story, *Wonder Boy in Monster Land is* a game that lives and dies on its gameplay balance. Although the game's plot is far from revolutionary and could make the game more of a timepiece than a timeless classic, the amount of enemies, unique visuals and customization elements make Nishizawa's game work on a variety of levels. It's not your typical RPG experience. Although you'll get to defeat enemies and buy new weapons and armor like your average RPG game, the side-scrolling nature of the game made it more of a platformer or an action RPG than any arcade game—or the first-person RPGs on the Master System and the PC at the time. The arcade origin of the game influenced more than the gameplay however. After the original version of the game was finished, that's where Nishizawa and his team's hands were tied. All the other versions of the game, although named Wonder Boy or utilizing his gameplay innovations, weren't worked on by Keystone and his team.
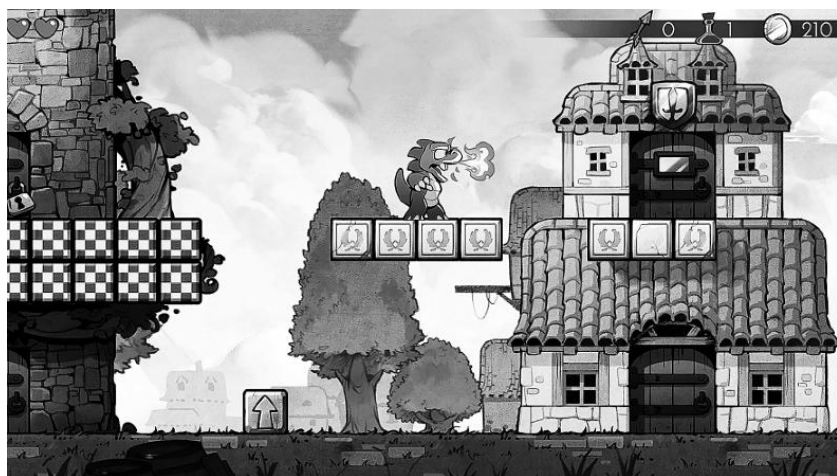
Ryuichi Nishizawa's games are still beloved to this day, thanks to a variety of remakes, like 2017's *The Dragon's Trap* shown here.

"I like making new games," Nishizawa said. "Therefore I was not interested in porting the arcade game that I made to a console. The Sega Corporation carried out the development for the console. So, I do not know the difference between the various versions."

Although not a huge hit on the arcade circuit, it was more than successful enough to lead to a bevy of sequels, ports, revisions, modified ports, re-releases and more. From that, Nishizawa understands the importance of the game in not only the history of the industry but in his own life as well. "*Monster Land* is the first work of this series. If it was not created, the sequels would not have followed," Nishizawa said. "When I think about it, I think that it may be said that this work clearly helped define parts of my life."

With so many different incarnations of *Wonder Boy in Monster Land* and the series in general, it's hard to identify the singular legacy of Nishizawa's work. While some may see a watering down effect due to a number of ports and remakes, the fact that both the *Wonder Boy* and *Adventure Island* franchises have continued to stand the test

of time (*Adventure Island: The Beginning* was released on the Wii in 2009), Nishizawa has nothing to be ashamed of. But like a philosopher of sorts, the developer sees his greatest work almost like the way a father would see a child—one that he nurtured for a time, but ultimately had to let go of in order for it to affect the world in its own way.

"'The work' is separated from the hand of the author from the moment it is released," Nishizawa said. "And it becomes a part of the person who was touched by the work. All of what each person felt [about the game] is true. I respect the truth."

Howard Scott Warshaw, *E.T.: The Extra-Terrestrial*

The Best Game Ever Made in Five Weeks

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It's a game that has lived in infamy since its release in 1982. We all know the legend: it was made in five weeks, was over-produced and returned by millions, with an unknown amount of copies dumped at a New Mexico landfill. It's often considered by many as the worst game of all time. But was *E.T.: The Extra-Terrestrial* on the Atari 2600 (or VCS, depending on how old you are) really that bad?

To understand what went wrong with the game, we have to know what went right first. By all estimations, Howard Scott Warshaw, the game's developer, was exactly the right man for the job.

Fresh off the successes of *Yars' Revenge* and *Indiana Jones: Raiders of the Lost Ark*, Warshaw was a rock star. In a time when video game developers weren't the celebrities that they are today, Warshaw was a rare example of undeniable charisma. Known for his innovation, Warshaw's record prior to *E.T* was perfect. *Yars' Revenge*, Warshaw's first game, is easily one of the most unique shooters of the era and *Raiders*, at the time, was one of the best games based on a film license. Ironically, it is because of his previous success that *E.T.: The Extra-Terrestrial* was destined to fail. Warshaw wasn't the type of developer to make something mediocre. He certainly wasn't the type to steal ideas or make a game just for the cash, either. That, at least in the case of this game, was one of his biggest problems. He wanted to have a legacy. He wanted all of his creations to be special. That just was never in the cards for *E.T.* And in spite of all of the success that came from his two other iconic games, Warshaw's name is synonymous with *E.T.: The Extra-Terrestrial.*

"I was trying to do something innovative. Each one of my games, I tried to do something really unique," Warshaw said. "What I was doing with *E.T.* was designing this game super fast. You don't

design a six-month game in five weeks. You design a game that may feel like a six-month game, but can be done in five weeks. It was a puzzle that recreates itself every time you generate a level, so it's a fresh challenge each time you go through it. And it was played on a 3D world. I think it was the first time someone tried to create a 3D world on the 2600."

With pressure from Atari to release the game by Christmas time 1982, Warshaw ultimately created a puzzle-platformer that seems simple enough to understand: find the missing pieces of E.T.'s phone so he can call his alien friends and go home, all the while hiding from baddies (an FBI agent and a scientist). Collecting Reese's Pieces along the way for bonus points added another gameplay element. By today's standards, it sounds like a winner, but remember, this is the Atari 2600, a system that thrived thanks to arcade ports and rarely had original hits of its own. From the start, this game was going to be either a huge hit or a massive failure. With Warshaw's proven track record and unbridled confidence, Atari essentially put all of their faith in him to deliver a winner in a situation that no developer had ever tried before.

ET: The Extra Terrestrial is considered by many to be the worst game of all time, but few know the difficulties Warshaw was forced to deal with during development.

To make things even tougher, the console limitations of the Atari 2600 made it hard for Warshaw to realize his vision. However, the

execution of the little things hurt just as much. For example, the game had no tutorial and sparse gameplay explanation in the instruction manual, making it nearly impossible to know how to play the game the first time you turned it on. Thanks to sloppy collision detection which saw E.T. fall into wells (where the pieces of the phone were) far more frequently than he should have, *E.T.* had enough things wrong with it to derail many gamers of the era. The vague icons on the top of the screen, which let the gamer know where E.T.'s landing site was and when he could ascend away from enemies, were difficult to understand too. Simply put, this is not an awful game on the 2600. It's just one that has too many weaknesses that could have been easily fixed. Warshaw just needed more time. Time he knew he was never going to get.

Warshaw had an uphill battle from the start, but things could have ended up far worse. *E.T.* film creator Steven Spielberg wanted a different type of game altogether. If he had his way, *E.T.: The Extra-Terrestrial* could have ended up as just a mediocre movie tie-in, lost forever among the plethora of movie-based games in the used game store bargain bin. That's something Warshaw never wanted to see happen with *E.T.* Like all of his games, he wanted something original and unique. Something memorable. Warshaw's drive, ambition and refusal to yield ended up making *E.T.: The Extra Terrestrial* a game, regardless of how good or bad it ultimately was, that is still spoken about today. Unlike many who fall in the face of pressure from powerful forces, Warshaw believed in his vision. He truly believed he could deliver a hit in five weeks.

And in a way, that's exactly what he did. *E.T.: The Extra Terrestrial* is one of the best-selling games in Atari 2600 history, selling 1.5 million copies. Only *Pac-Man*, *Pitfall!*, *Asteroids*, *Missile Command*, *Space Invaders*, and *Demon Attack* have sold more copies on the Atari 2600 than *E.T.: The Extra-Terrestrial.* Warshaw's other games, *Yars' Revenge* and *Indiana Jones: Raiders of the Lost Ark* sold over a million copies as well. With only three game design credits on his resume on the Atari 2600, his track record of creating games that sold made him a special developer at that time. His track record speaks for itself. However, Atari's mismanagement of the game's scope was a recipe for the game's demise, not Warshaw's ability as a developer. In anticipation of the game being a monster success,

Atari produced 5M copies of the game, forcing 3.5M back to the company as unsold inventory. That has nothing to do with Warshaw's ability as a creator of worlds and a storyteller. It was just a bad business move by Atari in which he, unfortunately, was caught in the middle.

Warshaw was hand-picked by Steven Spielberg himself and Atari's front office to make the game, off the heels of his success with the *Raiders of the Lost Ark* game. But this time would be different. He wouldn't have months to produce something special. From day one, Warshaw knew he'd only have five weeks to complete the game before the holiday season. Never done before, Warshaw saw it as a huge challenge and a huge opportunity. While later games have been made in comparable amounts of time (read the next chapter), in 1982, on the Atari 2600, the thought of making a full game in that amount of time was borderline insane. Even more mind-boggling, Atari spent $21 million to acquire the rights to the *E.T.* gaming franchise. Adjusting for inflation, that is over $52 million by today's standards. None of that scared Warshaw. Not one bit. There most likely wasn't a developer at Atari that had the intestinal fortitude to tackle a project that heavy.

"I literally got a call late on Tuesday from the head of Atari. It was like July 27 (1982) and he asked if I could do *E.T.* for Sept. 1. I said absolutely. He said to have a design ready for Thursday morning, first thing. You're going to fly down to Steven Spielberg to present your design," Warshaw said.

After less than 36 hours of putting a design concept together, Warshaw was on a plane to meet with Spielberg to go over the game. When Warshaw showed it to Spielberg, the film icon told Warshaw that he'd be happier if the game played similar to an iconic arcade game of the era.

"I had dealt with Spielberg before. I thought we had a good working relationship. He's a really interesting guy. I like him a lot," Warshaw said. "He kind of interviewed me before *Raiders* and he requested me to do *E.T.*, but when I took him through the design, he looked at it and then said, 'Couldn't you do something more like *Pac-Man*?' My impulse was to say to him, 'Can't you do something more like *The Day The Earth Stood Still*?' Steven Spielberg is one of

the most ground-breaking directors of my generation and he wanted me to knock something off. There was something about that that really bugged me. So I just chilled myself out and I told him that this was a game that we could do during this time frame and it was innovative and fresh and can bring attention to the characters. I then told him some of the principles of my design and that this was something that I could deliver in this really short time frame. And he was like 'Oh, okay.' He was cool with it after I had explained it that way. It was a funny moment. Could it be more like *Pac-Man*? But looking back in retrospect, maybe he was right…. I just didn't want to do it."

Warshaw has never had a problem discussing the problems with *E.T.* and never makes excuses for the final product. That doesn't mean he doesn't think the game could have been better if he had more time. And understandably so. Many of *E.T.'s* problems are small ones, the collision detection and the lack of tutorial in the instruction manual for example. If those things were fixed and could have easily been if they had more time, *E.T.* could have ended up as a very different game. But the bigger question is, would we still be talking about it 30 years later? Definitely not.
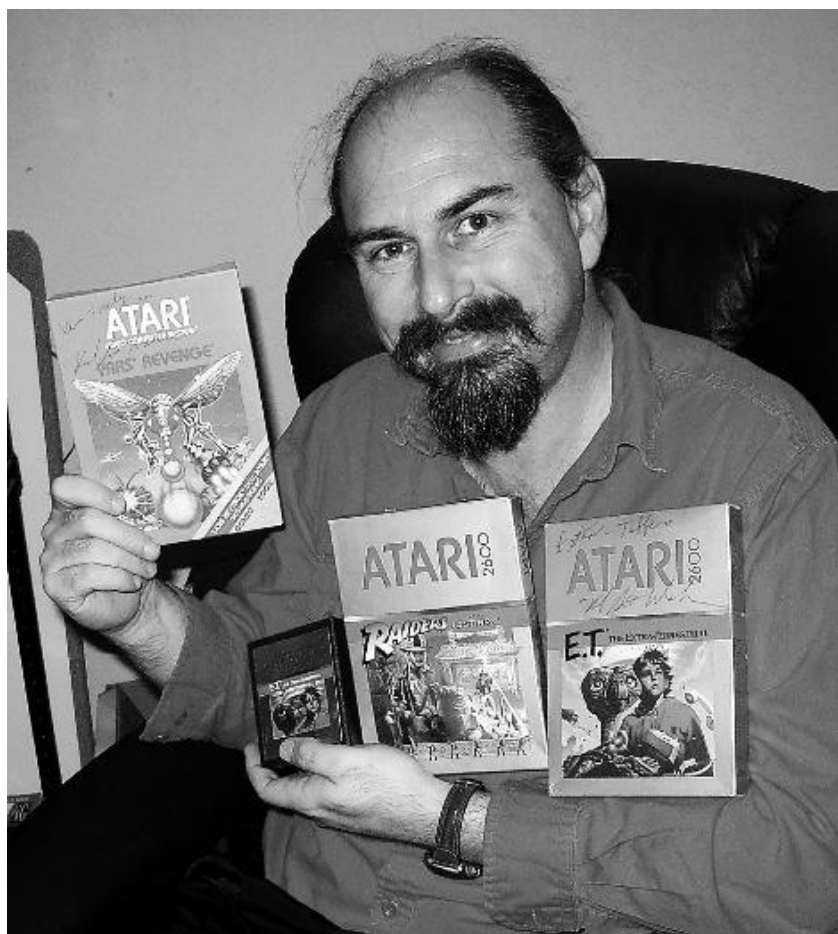
Howard Scott Warshaw released three games on the Atari 2600 and all three sold over a million copies.

"What *E.T.* missed was the opportunity to tune," Warshaw said. "I realize the biggest problem with *E.T.* was that I realized 100 percent of my design concepts and you never really want to do that. When you design something, you always want to do something better than your original design concept because you have the time to go back and revisit it, explore it and keep modifying, improving, refining and then you have a solid product. What happened with *E.T.* was that it was just the original concept. Most really good

products—their final version is much different than the original concept. *E.T.* didn't have a chance to evolve past the original concept. It was like one shot. Most games don't go that way. This one did."

It also didn't help that unlike *Yars' Revenge*, which went through months of playtesting, *E.T.: The Extra-Terrestrial* was not tested at all. There was no way of telling what the target demographic was or who would enjoy playing it. While Atari's marketing decisions, especially with Warshaw's prior games, were far from perfect by his own admission, *E.T.* was never given an opportunity to ripen. With the randomly-created levels alone, the game had plenty of replay value. It was different. An opportunity for critique from gamers prior to its release could have made a difference as well.

Once released, however, *E.T.: The Extra-Terrestrial* was definitely a sought-after video game for many kids during the 1982 Christmas season. And while early reviews weren't overly positive, the game sold well enough to be among the top four video games on *Billboard Magazine'*s December 1982 and January 1983 lists. Regardless, over-production and the costly rights to obtain the license created expectations that no game released at that time would ever be able to satisfy.

In spite of the perception that the game was one of the worst of all-time, several critics did enjoy the game too. The *Miami Herald* described it as "fun to play" and "worth the time." *Arcade Express* gave it a 6 out of 10 in 1982, saying, "*E.T.* should perhaps be judged as an attempt to produce an action-tinged adventure game for the younger home arcader." *Vidiot'*s March 1983 Issue declared it was a near A1 game, saying it, "had a good degree of longevity." While that doesn't change the fact that Atari lost a significant amount of money on the *E.T.* gamble, Warshaw proved he could do the impossible. He made the game he wanted, in the time Atari asked.

And the game, like all of Warshaw's games, sold well. Despite Atari's gross mismanagement of the game's development, *E.T. The Extra-Terrestrial* is still the seventh best-selling game in the history of the console. Over 30 years after its release, it's still spoken about today, gaining mentions in TV shows the likes of *Code Monkeys*,

podcasts such as *The Angry Video Game Nerd* and the documentary, *Atari: Game Over*, which features an interview with Warshaw and shows the unearthing of several copies of *E.T.: The Extra Terrestrial* from the now infamous New Mexico landfill. The mere mention of the game still sparks a debate. As a result, there have also been at least four different unofficial attempts to "fix" *E.T.: The Extra-Terrestrial*, from the source code being reconstructed, to the game being ported to the Nintendo Entertainment System with various "improvements." But in spite of its faults, it's just as classic a game as it is a cult one. Need proof? There are even copies of *E.T.: The Extra-Terrestrial* in The Smithsonian Institution and Henry Ford museum.

That has everything to do with Warshaw's work ethic during Atari's heyday and willingness to tell his story. That will make him and the game iconic, forever. One of the brightest minds in gaming history, Warshaw is more than a game developer as well. He finished his bachelor's degree in three years and went on to write the book, *Conquering College*. He's also produced documentaries on Atari and the BDSM scene in San Francisco. Now a psychotherapist, Warshaw's nickname is the *Silicon Valley Therapist*. And why not? Who else is more knowledgeable about dealing with the biggest successes and failures of a game developer?

And although Warshaw's attachment to *E.T.* outweighs his successes to some, the game is far from a career-defining failure. There are some that say the release of *E.T.: The Extra-Terrestrial* began the collapse of the industry in the '80s, but that's just silly. If anything, Atari's mismanagement with the *E.T.* license and inferior *Pac-Man* port forced publishers to pay closer attention to the quality of the games they released. Regardless of those failures as well, many publishers didn't learn until a decade later. During that time, there were plenty of companies the likes of LJN that continued to release putrid titles based off of licenses. Unlike many of those games, *E.T.* was never designed to be a cash cow. Atari spent more money than any other developer had before so they could get the license to make the game. The hope was to get back the money they spent and then some.
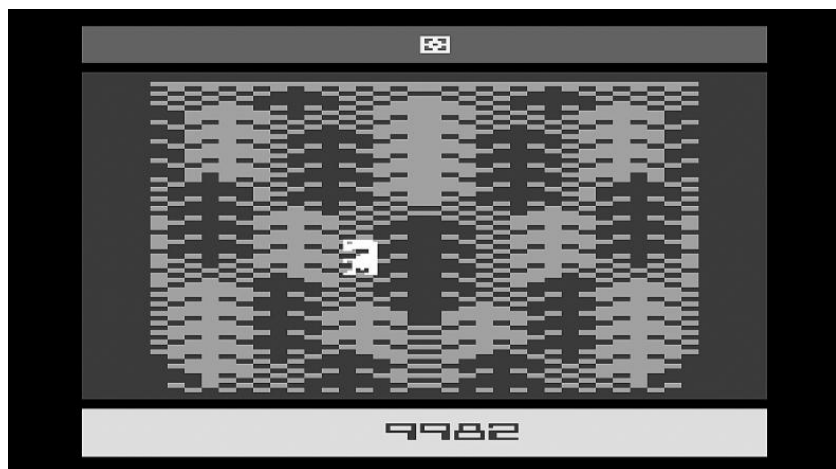
ET: The Extra Terrestrial **was a 2D adventure, set in a 3D world.**

Simply put, Warshaw's participation in the project made sure it wouldn't be a half-baked operation. And it wasn't. *E.T.: The Extra Terrestrial* was designed to be as full an experience as possible, with gameplay innovations never seen before on the console. You can't say that about *Back to the Future*, *Friday the 13th* or *Jaws*, three of the worst movie tie-in games on the NES, that definitely had more time in development. While there's no doubt that the game is an influential and important title, there's not nearly enough evidence to classify it as a title that nearly destroyed the industry, by itself.

The thought of having a piece of art you created being referenced negatively for 30 years might bother some people, but not Warshaw. He is more than happy to carry the burden that casual fans and Wikipedia readers have bestowed upon him. He knows the truth. *E.T.: The Extra-Terrestrial* is the best game ever created on the Atari 2600 in five weeks.

"I'm very proud of what I did with *E.T.*," Warshaw said. "I'll put it up against any other five-week development on the [Atari] VCS. I'll tell ya that. *E.T.* was a challenge. A challenge to make something happen that people thought was impossible. And that's what I loved about *E.T.* I'm never going to tell anyone that *E.T.* is a great game, but I think it was a great achievement."

David Crane and Garry Kitchen, *A Boy and His Blob*

The Best Game Ever Made in Six Weeks

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Nowadays it's commonplace to see a handful of great minds together on one game project. But back in the days of the Atari and Nintendo Entertainment System, getting two iconic developers to work on the same project was completely unheard of. That is until Absolute Entertainment's *A Boy and His Blob: Trouble on Blobolonia* in 1989. Designed by Activision founder and *Pitfall!* creator David Crane and the man who programmed *Donkey Kong* on the Atari 2600, Garry Kitchen, *A Boy and His Blob* is essentially a video game version of the first time Paul McCartney and John Lennon made music together. Or for those who could care less about the Fab Four, imagine David Jaffe, creator of *God of War* working on a mythological fighting game with *Mortal Kombat* co-creator Ed Boon. Sounds amazing, right? That's exactly the type of buzz that *Boy and his Blob* created in the game development community when it was originally announced.

But it wasn't exactly an easy ride in development. A wild project like *E.T.: The Extra-Terrestrial* in the fact that it was designed in a matter of weeks, six to be exact, Crane and Kitchen's dedication to the project and attention to detail was unparalleled. A puzzle/platform game that's easy to jump in and play, but difficult to master, *A Boy and His Blob* may seem like just a cool game with a fun gimmick at first, but it's also one of the deepest gameplay experiences on the NES. Traveling around beautiful environments with your Blob, Blobert (inspired by Gloop and Gleep from the Hanna-Barbera cartoon *The Herculoids*), the player feeds him jelly beans (14 different flavors) to get him to transform into various objects needed to reach the end of each level and defeat enemies. So simple, but requiring thought and providing satisfaction when completed, *A Boy and His Blob* has that payoff every game needs in

order to be successful. That has everything to do with Crane's passion for the project.

"I worked at least 16 hours per day for the last two weeks of the project; and 20 hours per day for the last four days," Crane said. "Then we flew to Chicago to show the game at CES and worked the booth by day and debugged by night. You would think that was enough. And yet, I couldn't let the game go out without the kinds of special design touches that I was known for. One example was the underwater bubble effect. When the Blob is turned into a bubble using the Cola-flavored jellybean, the Boy could ride inside the bubble and travel underwater. Once the effect was coded it seemed a little flat. So at midnight, two days before our flights to Chicago, I asked the artist for a small air bubble graphic and the sound effects specialist for a bubble-popping sound. As the Boy in the bubble traveled underwater, I wrote the code to make the bubble gives off a trail of small, popping air bubbles. That one small effect really made the underwater scene work. I knew I didn't have the time, but I couldn't release the game without that touch. In other words, I learned about myself that the game controlled my actions almost as much as I controlled the game. Even in the face of an insane deadline, I couldn't let the game go out until it was as close to perfect as I could make it."
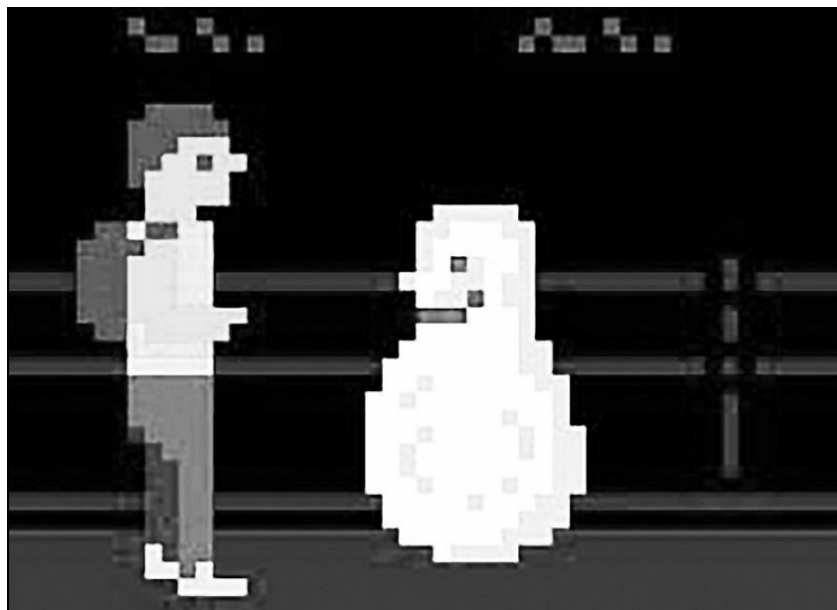
Blobert isn't one of the most recognizable characters in NES history, but he is a memorable one.

A legend in his own time, Crane's *Pitfall!* sold over four million copies on the Atari 2600, while Activision, even after Crane's departure, has maintained its place as a heavyweight in the industry for over 30 years. Crane's willingness to innovate and create something special, in record time, is the reason why *A Boy and His Blob* is a cult classic and one of best third-party examples of game design on the NES.

The game was also the first game developed and published by Kitchen's Absolute Entertainment, a brand that also created other sleeper hits the likes of *Super Battletank* and *Turn & Burn: No Fly Zone* on the Super Nintendo. But at the beginning, before Absolute cemented themselves as a publisher, they needed a hit game. Crane and Kitchen made that happen—with their first game, again in record time.

"I was working with Garry Kitchen at Absolute Entertainment when the company became qualified to publish NES games," Crane said.

At the time, Absolute, doing business as Imagineering Inc., was developing NES games for other companies—developing successful games for the NES including many of Acclaim's Simpsons games. For Absolute's transition from developer to publisher on the NES platform, we wanted a game that was unique. I took on that challenge.

"My brainstorm was to make a tool-using adventure game, but without the inventory page that breaks up the gameplay as the player selects a different tool. I envisioned the shape-changing Blob that would be both your companion and your toolbox. I prototyped the Boy, the Blob, and the ladder transformation in about a week and sent it off to Garry. We all saw the potential and brainstormed it into a complete design with the Blobolonia backstory etc."

The biggest reason for the success of the game was Crane and Kitchen's desire to "make a splash." But in order to do so, they'd have to turn out a game in near-record time. Unlike today's games, which receive patches and errors that can be fixed after release, Kitchen and Crane had just one shot to get the game right. With a small timeframe to get as many eyes on it as possible, they did the impossible.

"For an NES game to be successful, it had to be in stores by Thanksgiving for the Christmas season," Crane said. "Nintendo had a strict rule that the final ROM had to be in their hands in the first week of June in order for the product to be manufactured and shipped in time to meet the Thanksgiving deadline. Since the company became an NES publisher in late April, our schedule was hemmed in by hard deadlines—leaving maybe six weeks for development. We knew we were biting off the hardest project of our lives, but getting a game out for Christmas was critical for the company."

In order for the game to be produced, you'd think that a lot of corners would have to be cut, but it's the small things that make *A Boy and His Blob* shine. Unlike many adventure games of the era, the way players pick and use items is slimmed down incredibly and the graphical and audio polish used throughout the game form a level of attach-ment between you and Blobert, unlike previous puzzle/platform games on the system. While at the time it was

viewed as tricky and hard to grasp, due to how different it was, it laid the groundwork for plenty of other games to follow and made you focus on the task at hand. Between the concept, gameplay design, animations and sound effects, the fact that it was done in six weeks is still at times unperceivable. Simply put, the fact that Crane and Kitchen had so much experience made the impossible possible. The fact that the game is fun, on top of just working, is amazing. That had everything to do with the pedigree Crane and Kitchen brought to the game's development.

David Crane's ability to create and innovate has made him an iconic developer.

"One of the hardest things to accomplish in game design is to make a game challenging without being just plain hard," Crane said. "*A Boy and His Blob* was a fun game to play. When you achieve the right mix of fun gameplay and challenging enemies, that game can continue to provide fun play for a long time."

The game is also enjoyable because there are a few different gameplay mechanics in play. While Crane was all about using Blobert and platforming, solving puzzles in the first part of the game while on Earth, Kitchen's use of speed and rolling of Blobert away from enemies and the unpredictability of Blobolonia gives the second half of the game a different, but unique feel that makes it truly special.

"David and I decided that the best way to split up the development was to have two distinct worlds," Kitchen said. "He was responsible for Earth and I was responsible for Blobolonia. The main goal of bringing me in was to make sure that the game had enough depth, given the compressed schedule. David came up with the vitablaster [a gun used on the Blobolonia levels needed to perform certain tasks] and I programmed and designed the levels on Blobolonia around that gameplay element, differing the off-world gameplay from the earth gameplay and hopefully adding some depth to the overall experience.

"In addition to the Blobolonia levels, I also came up with the centipede, which we ended up using throughout the game. Somewhat of a funny story, I was fooling around with this simple bouncing character, like a bouncing ball, which bounced to the right, then left, then right, etc. It was meant to be a single ball, but I made a small change to the code which created a bug, causing the code to launch a series of these balls, rather than just one. The effect of this unexpected bug was a centipede-like creature made up of all of these connected body parts. We loved it and put it in the game. A fortunate bug."

The constant race against the clock alone could have been enough to sink another pair of developers, but Crane and Kitchen never stopped believing that the project could be completed on time. "I suppose we had our doubts all along, but we had confidence in our abilities. The same can't necessarily be said for everybody on the project," Crane said. "We brought a recent hire into the project to do the image compression systems. After the first team meeting, he stayed back until everyone else had left. He asked, 'Is it normal to make a game of this complexity in six weeks?' We had to admit that it was actually the most challenging schedule we had ever

attempted, but that 'He will just have to trust us that we know what we were doing.' Were our fingers crossed? Probably.

"A game is always a tradeoff between cost, schedule, and features. So there were many things I hoped I'd have time for that didn't make it, among those being more animation frames for the Blob's transformations. But we were quite happy with what we accomplished, and we all enjoyed playing it."

"They were complete hell," Kitchen said of the game's final two weeks of development. "It was brutal, but totally worth it. I am very proud to have been involved with such an innovative title."

Upon release, *A Boy and His Blob* was praised by critics, citing it as a continuation of Crane's epic work on *Pitfall!* and applauded the game's backgrounds and animations of the main characters. It also sold well. "At the time, a game that sold 50,000 units was considered a success," Crane said. "100,000 was a hit. *A Boy and His Blob* sold 250,000 units."

However, before the game was released, Crane and his team faced an obstacle from Nintendo themselves that almost killed the project's chances at the success. "We heard from a contact inside Nintendo that *A Boy and His Blob* was the favorite game inside Nintendo of all of the Christmas games that year," Crane said. "It was played and discussed in the halls and at the water coolers. That went right up to the top echelons. Great, right? Unfortunately, one of the top executives lost his Blob while playing. Although this is difficult to do, you can lose him. If you leave him behind and fail to 'whistle' him back, he could get lost. So, in September, that executive rejected the game unless I could fix that. I was given one day to fix it or miss Christmas.

"To solve this problem I created a 'ketchup' flavored jellybean. If you toss a ketchup jellybean onto the ground, the Blob would 'catch up' to you. But in order to fit that new functionality into the ROM, the ketchup jellybean had to replace another flavor. That flavor was Grape and was programmed to turn the Blob into a Wall ('Grape Wall' being a play on 'Great Wall'). I added code to make the Blob refuse to eat the Grape jellybean so it would fall to the ground rather than be eaten. But to this day, there is some combination of

moves that can get the Blob to eat the ketchup jellybean and turn into a brick wall."

While still a success and one of Crane's crowning achievements, he admits that there were much bigger plans for his Boy and his pal, Blobert. Although the sequel on the Game Boy was a success and the 2009 Wii remake by Majesco, which Crane calls "a good contribution to the Blob universe," was praised by critics and sold 210,000 copies, the thought of what could have been is still there.

"A little-known fact about *A Boy and His Blob* was that we were much more ambitious at the start," Crane said. "We didn't just want to make a video game—we wanted to simultaneously release a video game, an animated motion picture and a toy line [Can you imagine those cute plush Blobs?]. We hired the producer of the animated *Transformers* movies and sought funding from Hasbro and other companies. Alas, the 'big idea' didn't get funded, so we concentrated on the game."

While it's easy to look back and think how things could have happened differently, in the end, *A Boy and His Blob* was a successful game that did the unthinkable at the time—put two gaming heavyweights on the same team. For that, it's an important title for Crane and one that is unlike any of this work prior.

"*A Boy and His Blob* was the first true collaboration between myself and Garry. Because of that collaboration, we gave the game player almost two complete games in one," Crane said. "It is not uncommon to have multiple programmers on a game, but it is unusual to have two top game designers building two different types of games in one universe. After the player finished in the caverns beneath New York, he turned the Blob into a rocket and flew off to Blobolonia. There, the player played a completely different game mechanic, shooting vitamins from a Vitablaster in a side-view screen-to-screen game with completely different challenges from those on Earth. We knocked Absolute's first NES game out of the park."

"David and I had worked together since 1982," Kitchen said. "From day one, we were very good at reading each other's code. It was a very fun experience to co-develop an NES game with him."

Although Crane would continue to play an active role in the industry for years to come, developing *David Crane's Amazing Tennis* and several of *The Simpsons* games for Absolute and playing a role in the controversial *Night Trap, A Boy and His Blob: Trouble on Blobolonia* is a game that will always be special to him.

"My games and I are inseparable," Crane said. "I want *A Boy and His Blob* to be remembered just as I want myself to be remembered. We gave our all to give players a few hours of truly fun, immersive gameplay. If you remember my games fondly, I know that I did my job well."

Sarah Jane Avory, *Fighting Force*

From Streets of Rage 3D to Core Classic

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Beat-'em-up games have always been a cornerstone of the arcade experience, as well as consoles from the eight-bit Nintendo Entertainment System to the 16-bit consoles that redefined the industry and put games in more homes than ever before. From *Double Dragon* on the Nintendo Entertainment System to *Streets of Rage* on the Sega Genesis or *Final Fight* on the Super Nintendo, the beat-'em-up genre has always had a dedicated fanbase. But by the time of the Sega Saturn and Sony PlayStation, the genre was in dire need of a new series—something fresh. One that not only took advantage of new software capabilities but one that was also fun. Sarah Jane Avory and Robert Cirillo's *Fighting Force* was exactly that. A 3D beat-'em-up experience with something for everyone that was inspired directly by Sega's *Streets of Rage* series, it was a million-seller that satisfied a huge need in the industry at the time.

That need was to take advantage of new 3D technology and give gamers more than a 2D, sidescrolling beat-'em-up. As good as *Streets of Rage* and other similar games of the era were, the recipe was lather, rinse, repeat. What Avory and her team did with *Fighting Force* was take the elements that made beat-'em-ups great, solid control, cool characters and world interactivity and turn it on its head. Not only are Mace Daniels, Hawk Mason, Ben (Smasher) Jackson and Alana McKendrick all cool characters that play differently, but the world in *Fighting Force* is incredibly interactive. Pretty much everything in the game can be used as some sort of weapon. While hitting fire hydrants in the *Teenage Mutant Ninja Turtles* beat-'em-ups was fun, *Fighting Force* takes it to the next level as car tires can be used to beat down opponents, as well as ashtrays. At the time, this was revolutionary stuff. Over 20 years after its original release, *Fighting Force* is still fun. It still gets the job done.

The same thing goes for the game's control. A simple pair of three-hit combos for both kicks and punches made it easy to play, especially with friends, while the game's throw mechanic spiced up combat and made it more than a button-mashing experience. There was even a bit of strategy needed as the effort was always not to get cornered or surrounded by opponents. Like any game in the beat-'em-up genre, it's hard to avoid repetition, but *Fighting Force* again made itself different by allowing the player, at times, to pick which level they could advance to. While many of these gameplay trimmings seem trivial now, at the time, they helped define *Fighting Force* as the go-to beat-'em-up on the Sony PlayStation.

However, it was never Avory or her team's wish to end up on Sony's 32-bit powerhouse. A self-proclaimed "Sega Girl," Avory wanted the game to be the next addition to the *Streets of Rage* franchise, on the Sega Saturn. Previously working on Sega CD and Sega Saturn games such as *Thunderstrike 2*, *Soulstar* and *Jaguar XJ220* before *Fighting Force*, Avory had an affinity for Sega consoles and preferred to work on their hardware. Working primarily on shooters and racing games as well prior to *Fighting Force*, Avory was excited at the opportunity to work on something much different. Alongside Roberto Cirillo, who did the game's art, Avory had all the pieces in place to give Sega a much-needed sequel to *Streets of Rage*.

"The game *Fighting Force* initially came from an idea I had a long time ago. You see, I've always been a Sega fan, from playing all the great arcade games when I was younger," Avory said. "Oh, I can still remember playing *Space Harrier* at Great Yarmouth arcades; my two brothers and I used to go there every summer to check out all the latest games. So, anyway, when Sega released the Megadrive (Genesis), I used to play those games too. One of the games was *Streets of Rage* (SOR), a game my brother and I could play co-op together. Oh, I loved that game, especially as a two player cooperative. Together, we spent many an hour playing *SOR* and its sequel."

As fate would have it, however, Avory would have an opportunity that every game developer dreams of—to work on a project straight from their heart. "One time at work (I used to work for Core Design Ltd.), the boss booked a conference room at a local golf club for a

brainstorming session where everyone could sit around a massive oval table and pitch any game ideas we had. Being a fan of *SOR* and with the 3D polygon era of games upon us, I had the idea of making a fighting game of a similar style to my beloved SOR, only as a 3D polygon game."

Regardless of her love for the *Streets of Rage* franchise, however, Savory's heart as a game developer was formed somewhere else entirely. As a matter of fact, she's probably the last person you'd ever expect to design a fighting game. "I have to admit, I hadn't actually planned on being the one writing the game. You see, at the time I had a deep interest in flight simulators, so my main programming interest lay in developing 3D flight games, especially combat helicopters," Avory said. "For this reason I started the *ThunderHawk* (*ThunderStrike* in the U.S.) series for Core, having joined the company with a working 3D engine of my own. But after completing *Firestorm: Thunderhawk 2* for the Saturn and PS1, I was free to work on the new fighting game. So along with my artist and good friend, Roberto Cirillo, we began work on the game.
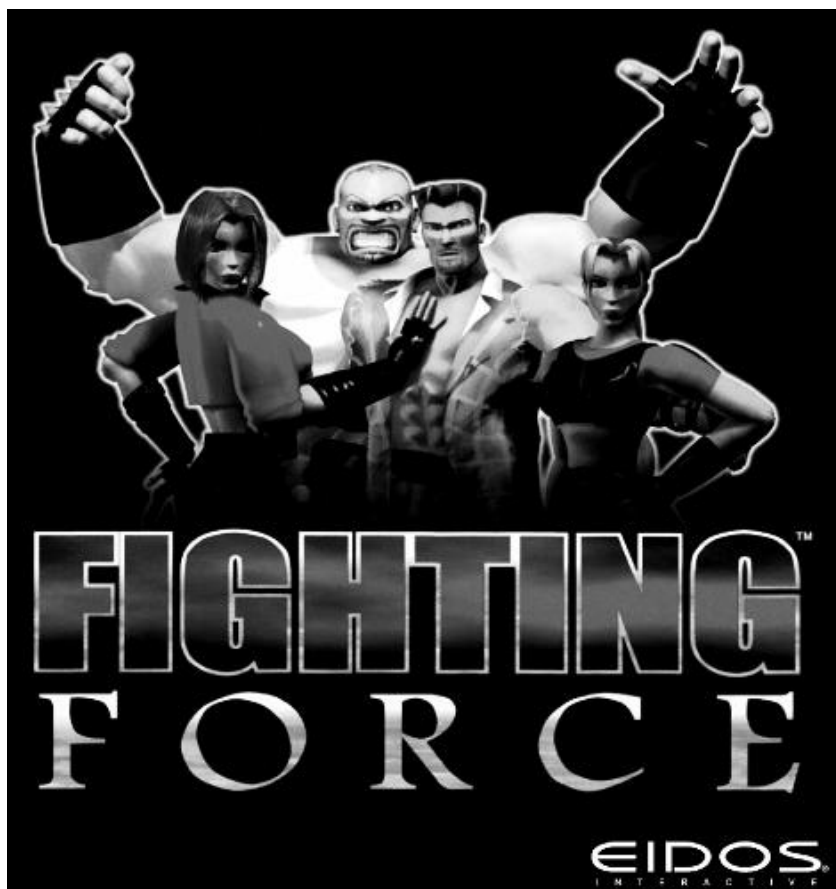
Fighting Force **was originally supposed to be a 3D continuation of the** *Streets of Rage* **franchise.**

"Originally, with the game to be a 3D version of *Streets of Rage*, the idea was to produce a Sega Saturn game. So from some tricks I learned while writing *Thunderhawk 2* for the Saturn, I decided to use the 3D playfield hardware from that game for a flat terrain with polygon characters and objects drawn on top. That is why all of the game takes place on a flat plane (although there are areas where we cheated to give the illusion of height, namely the elevator sections). But after a short while, and with the rise of the PlayStation, it also made sense to write a PlayStation version."

However, with Sega not onboard for a 3D *Streets of Rage*, Avory and Cirillo got to put their own stamp on the game. What started as an extension to one of the greatest beat-'em-ups of all time, became an exciting new fighter with a story, characters and gameplay all its own. At the same time, it's hard to separate the two. Like Madonna to Lady Gaga, *SOR* and *Fighting Force* come from a similar place and create the same type of experience. *Fighting Force* just did it with better technology.

"After the SOR idea was dropped, we didn't need to change the game much; to start with it hadn't originally been designed to be *SOR*, just something of a similar vein, although Roberto did model and texture some of the *SOR* characters," Avory said. "Instead, the revised plan was to release both a Saturn and a PlayStation version."

But as development on the project began to take shape, Avory and Cirillo saw *Fighting Force* begin to forge its own identity. Although they were forced to alter the original design, mainly due to business decisions and Sega's inability to maintain a profitable position in the 32-bit console wars, these moments went a long way in establishing *Fighting Force* as something unique. They also had a direct impact on Avory as a developer.

"At first it was just myself and Roberto working on the game, but others were brought on board to help," Avory, who is currently Senior games programmer at Frontier, Cambridge and one of the AI programmers for *Elite: Dangerous*, said. "Another programmer took over the Saturn version when I switched over to code the PlayStation version. I remember not being too happy about leaving my beloved Saturn to work on its rival, but I saw the swap as a fresh challenge, so it didn't take long for me to learn to program the PlayStation's MIPS CPU and Geometry Transformation Engine [GTE]. But with the rise of the PlayStation, after a while, it was decided to drop the Saturn game completely and instead focus all our efforts on the PlayStation version. A sad day for me personally when I now look back, for it marked my departure from ever programming on a Sega console again."

The changes in the eventual platform the game would be released on were huge, but there were several other changes made during

development that influenced the game's gameplay as well. Although a beat-'em-up that features human characters and enemies, *Fighting Force* originally had a different type of feel entirely. "On the first level, after the elevator stage, the corridor leading up to Zeng's office originally had robots bursting out from the walls to attack the player(s) when the lights start to flash red," Avory said. "Roberto had modeled them and I'd coded them, but our boss didn't like the idea when he first saw them; when he didn't like something, he let everyone know! We argued a bit, but he was adamant to keep the opponents as human only, so we had to drop the idea, replacing them with super-sized black suits instead."

Those changes in theme and level design were small compared to one that ended up in the introduction of another character in the series. "The boss at the naval base was originally designed as one of the player characters," Avory, who has self-published ten books of a fantasy series titled *The Briley Witch Chronicles*, said. "But our boss didn't like the idea [even though it had been modeled, textured and animated], so we had to drop the character, hence the creation of Alana. Not wanting to lose all the work put into the character, we instead added him as a boss character and gave him his lightning attacks."

In spite of any of the alterations to the game during development, *Fighting Force* remains as a million-seller on the PlayStation and a beat-'em-up that quenched a huge need for arcade fun. Just like the classic beat-'em-ups of the arcade era, *Fighting Force* was chock full of secrets and elements that made it more than a vanilla button-masher.

"Perhaps it's due to the fact it's a game where you can switch off your brain, let loose a bit of aggression, and beat the crap out of your enemies! I mean, it's okay, they're all baddies, right," Avory said. "Oh, and using weapons from the scenery and smashing up the place is fun too. I especially enjoyed adding weapons and a few secrets in all sorts of places. One of my favorites has to be the drink machines. You can hit them (they dent with each successive hit) to get soda cans to replenish your health, but you can also smash them to pieces and use the debris as weapons. In fact, you earn bonus points from causing as much destruction as possible. We added a lot

of places to pick up weapons, such as railings and fireboxes with axes, as well as stealing weapons from the enemies. We deliberately limited the ammo on any guns, making them useful, but not overpowered. After all, *Fighting Force* is a fighting game, no?"

Although the reception of the game was mixed at the time of release (*Fighting Force* has a 64.17 percent rating on GameRankings.com across seven mainstream media reviews), its sales numbers confirmed its place as a PlayStation Greatest Hit and as a favorite among gamers of the era. While Avory isn't fond of the sequel or port on the Nintendo 64, the original *Fighting Force* is a game that'll always mean a lot to her.

"*Fighting Force* is a game I remember fondly, especially when I think back to those glory days," Avory said. "Those were fun times for me, being given new hardware to 'play' with and seeing what it could do. As a programmer, things have changed so much over the years. In the early days, a programmer coded games entirely in assembly language, squeezing every last CPU cycle out of the limited processors; these days it's all large teams coding in C++, letting the compilers do much of the code optimizing; I'm sure there are programmers today who have never coded in assembly language. So there are times when I look back, shed a tear or two, and remember those days and the games I wrote. It's nice that people still remember *Fighting Force* and enjoyed the game; it gives me a fuzzy warm feeling in my heart, especially reading comments from people who loved the game and perhaps still do."

Sarah Jane Avory's resume consists of mainly flight simulators but *Fighting Force* rests warmly in her heart.

With the last edition of *Streets of Rage* hitting store shelves in 1994, *Fighting Force*, in 1997, gave fans of Sega's series an alternative. With no sequel and the demise of the Saturn, the style of gameplay could have been lost forever.

"Unless I'm mistaken, I don't think anyone else has tried to do a 3D *Streets of Rage* style game," Avory said. "I guess that makes *Fighting Force* special. Plus, being a two-player co-operative game it can be a lot of fun."

In terms of a legacy, *Fighting Force* is best to be remembered like

your senior prom—something worth waiting for that affected everyone who experienced it differently. For some, it's something they'll never forget and for others, it's just another game. However, regardless of how the game affected you, it's hard to deny what the series did for the beat-'em-up genre on 32-bit consoles. From breaking through anti-tank barricades and using a rocket launcher, it certainly delivered a wide-reaching beat-'em-up experience on new hardware. It's also fair to say that it connected plenty of players that have never experienced *Streets of Rage* before with something that in spite of being inspired by it, was just as deep and enjoyable.

"I would like *Fighting Force* to be remembered as a fun two-player co-operative game," Avory said. "Overall I would like to think it succeeded in meeting its original design. I certainly have no regrets."

Dane Bigham, *Where in the World Is Carmen Sandiego?*

Exploralational Not Educational

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Educational games are not supposed to be fun. Educational games are not supposed to be entertaining and innovative, either. But after influencing millions of kids and inspiring a plethora of spin-offs, as well as a game show and animated series that won Emmys, *Where in the World Is Carmen Sandiego?* is the undoubted king of educational games and a fixture of the '80s and '90s pop culture scene. That has everything to do with the fact that it was designed to be a fully-functioning game that just happened to educate people. At the same time, its brand-new gameplay engine resonated with adults, even if the intended market was kids. In the end, it's an awesome game that not only redefined a genre—it made it possible for it to grow into a behemoth.

Created by Dane Bigham, Gene Portwood, Lauren Elliott and Gary Carlston, *Where in the World Is Carmen Sandiego?* is a game that will test your knowledge of geography and the world, but it's on the back of Bigham's iconic gameplay engine that the game truly thrives. While the learning of new facts is an important facet of the game, the way it organizes all of its material is the reason for its success. From the clues to catch baddies to the cartoony sprites that tell a story of their own, everything is expertly put together and understandable by anyone, regardless of their affinity for video games. Reinventing the wheel that classic text games began years prior, *Where in the World Is Carmen Sandiego?* ended up as a revolutionary title that introduced millions of kids to both games and interactive learning.

Like anything great, however, Broderbund, the company that published the game, was just out to make something polished. The initial hope was that the game would gain moderate sales. It was never thought to be a game people would look at three or four

decades later as groundbreaking. But as fate would have it, the game's impact would change the face of edutainment forever. The game's polish comes as a clear byproduct of Bigham's experience obtained programming *Lode Runner* on the Commodore 64, where he proved he was capable of making something that not only worked, but was fun. Because of this, *Where in the World Is Carmen Sandiego?* has a duality not many games in the edutainment genre can lay claim to. It also helps that Broderbund wasn't simply an educational game publisher. Games the likes of *Galactic Empire, Apple Panic* and *Choplifter* were released before or around the time of *Where in the World is Carmen Sandiego* and proved they were a publisher that could hold their own with any company during that time period.

Although an educational game by nature, in its heart, *Where in the World Is Carmen Sandiego?* is a cat and mouse adventure game. Originally titled the *Six Crowns of Henry VIII*, the game's story had the player chasing the Tudor King around London. Eventually however, the game adopted the spy theme it's famous for today. Not so ironically, that's where a lot of the game's charm ultimately comes from. Nothing against the history and landscape of London, but using the world as a template instead required you to know your fair share of geography and various world cultures and made the game far deeper. Make no mistake, it was a technical achievement for its time because it was challenging, even for adults, many of who, by their own admission, played the game while their children slept. According to Bigham, the bond the team shared from the first day of development led to the creation of a product that was immensely deep and enjoyable.

Broderbund made sure *Carmen Sandiego* was a unique package. Included with the game was a massive world almanac.

"Carmen was the result of three things coming together," Bigham said. "I was working on an interface that made traditional text-based adventure games more accessible. I was also creating a logic engine for the adventure game. Gary Carlston and Gene Portwood collaborated with me and we came up with a twist on adventure

games that was cops-and-robbers themed. Gary brilliantly included the Almanac as the clue base and Gene created the wonderful characters. The creative and open culture at Broderbund enabled the producer and many others to contribute and craft the game together."

Great games are always fun, but they're also rewarding once completed. There's always a sense of balance and poise. Without the right amount of both, a game's message is lost on players. Too many lackluster side quests can ruin an RPG. A lack of difficulty can ruin an otherwise enjoyable puzzle game. Sports games are defined by their attention to detail. In the case of a game like *Where in the World Is Carmen Sandiego?* where it's all a chase, filled with a plethora of questions, the recipe has to be perfect for the game to resonate and be addictive. This is where Portwood's story plays an integral part in the flow of the game. Collecting clues to catch members of Sandiego's Villains' International League of Evil, or V.I.L.E., and eventually Carmen herself, the gamer is in a constant race against the clock. Teaching the player about the world and even the law, it's anything but easy. With 30 locations to travel to and a hearty list of enemies, there is almost too much to do at times. This notion of depth and intrigue could easily be connected to the story as well. Although reading between the lines of the pun-filled dialogue made things easier, the game was always a challenge, even if you were an adult. If you were a part of the target audience, however, that 11–15-year-old kid during the '80s and '90s, you had to always pay attention. You had to find clues. Any 30-something now remembers those gameplay sessions with Carmen as ones that depended on patience, concentration and focus. It was quite a different experience than playing say, *Ninja Gaiden* or *Contra*. While there was never a doubt that it was a video game, it was just so different from everything else available at the time.

And while the core gameplay is what makes the experience special, what came packaged with the game, thanks to Carlston, changed it entirely. Ironically, the game was intended to be a part of a "package" and not a complete entity by itself. A big attraction was the 1985 World Almanac that came with the game. Over 900 pages, the entire package of *Where in the World Is Carmen Sandiego?* was

quite hefty. No games came with books like that out of the box and still today it doesn't happen. It was also an intriguing way to prevent illegal copies of the game from being made and shared. Simply put, you needed the almanac to find the answers to clues, unless you were a genius. Although it made for one of the most interesting complete-in-box games ever, in the end however, even if gamers enjoyed combing through the atlas for clues, the game was the huge selling point. Together, however, the almanac and game together proved to be a unique package and one that provided a plethora of educational and gameplay-inspired memories.

That has everything to do with Brigham's programming work. The engine used in *Where in the World Is Carmen Sandiego?* allows the player to seamlessly travel around the world, collect clues, issue warrants and solve mysteries with what is by today's standards, obsolete technology. Regardless, playing it is a frenetic experience and one that was able to make the gamer feel like they were running after thieves all over the world. Remember as well, this is 1985, the same year that *Super Mario Bros.* hit the Nintendo Entertainment system and years before *Sonic the Hedgehog* was a household name. Games on better consoles do a lot less than this one did, but somehow, someway, Bigham was able to craft an intelligent adventure that appealed to millions of kids and gamers.

Dane Bigham is one of the founding fathers of educational video games, but his resume consists of successful commercial games as well.

"Broderbund, in those years, was nothing short of a miracle place to work and create together," Bigham said. "We still have gatherings every other year at Doug Carlston's house. The camaraderie and environment brought out the best in everyone. We were so bonded together. In terms of the technical elements at play they were very

crude, but fun for an engineer geek like me. All assembly language, home-grown tools for 'peeling' animation frames of a screen field of drawings, and the opening music was tapped out on a makeshift piano I rigged up to the Apple II keyboard. All the little sound effects were direct-to-speaker code loops. The database of clues and cities etc. was all home-grown. It was fun."

The game's attention to detail and innovation are what made it special. But it also made the project an uneasy one for Bigham at times. Creating something from scratch is far from easy and the pressure, or even monotony, sometimes got to the developer. While it was never a project that Bigham felt wasn't going to be completed or was ever in jeopardy, there was a situation that almost affected the game.

"Carmen didn't mimic any other game style of the time and by mid project, it got a little boring. I started to be pulled towards more sexy projects," Bigham said. "I actually asked Gary if I could hand it off to someone else and go work on a 'real game.' Wisely, he looked me in the eye and said that Carmen was in my head and that it needs me to finish it. This was, of course, best for the product and very much best for me financially. I still mention this to Gary even today and thank him."

With Bigham at the programming helm, it was a huge benefit to the series and helped define it as so much more than a game that came with a 900-page World Almanac. And although *Where in the World Is Carmen Sandiego?* is a landmark educational game that ended up in over 300,000 schools across the United States in the '80s and '90s, played by easily over 10 million people, pigeon-holing it as an educational game isn't exactly fair either. With his experience on commercial games and hunger to create something more, Bigham made sure that the game always delivered on various gameplay fronts. Although the game always feels educational, as it requires knowledge and quick-thinking, it does it in such a surreptitious way that it's accessible to anyone, not just kids. Armed with her red trench coat and hat that made her look even more mysterious, Carmen was a baddie gamers simply obsessed over. So much more than a PC game as well, future editions of the *Carmen Sandiego* series ended up eventually hitting shelves on the Sega Genesis, Sega

Master System and Super Nintendo consoles as well as the Nintendo Wii.

"We tried really hard to not categorize it as educational, instead calling it 'Explorations.'" Bigham said. "I considered educational games to be dead boring, so I am very proud of the overall gameplay, which is mostly my baby. Also, the educational component is not designed to teach geography. It's designed to teach reference skills."

With the gameplay and story nailed down and what Bigham called a lengthy development process finally complete (over two years from the original concept creation), *Where in the World is Carmen Sandiego* was released in 1985. Regardless of all the time and effort that went into the game though, Bigham and his team weren't guaranteed any type of success at all. "I did not expect it to be a big hit, and only hoped it would do moderately well," Bigham said. "In fact, it took a full year for sales to pick up. I noticed that adults treated it like a trivial-pursuit game, trying to figure things out, like which destination country exported oil, etc. So, it seemed 'catchy,' but I just didn't dare hope it would be a big hit."

However, after the game was taken on the road by Broderbund's Bill Holt, the team started to see the effect it had on consumers. Schools began to buy it in droves and soon enough, the legend was born. It was more than a fad. It was an institution. Six years later in 1991, PBS created a game show based on the video game that immortalized it in pop culture lore forever. C'mon, who doesn't remember the theme song to that show? In 1996, Fox debuted the Carmen Sandiego animated series and just like the game show, it won an Emmy. To date, there are over a dozen different versions of the game from *Where in the USA Is Carmen Sandiego?* to the freeware, fan-created *Where in Hell Is Carmen Sandiego*? Simply put, whatever the franchise touches, it ends up as a success. Now over 30 years after its initial release, the game's legacy is a clear one. That's quite the difference from what Brigham and his team's original hopes were. Away from *Oregon Trail, Where in the World Is Carmen Sandiego?* is the Incredible Hulk of edutainment games, creating a franchise that has continually made an impact on children. With 30 years of games, cartoons and TV shows under its

umbrella, it's fair to say *Where in the World Is Carmen Sandiego?* has affected several generations of gamers—and students. It's because of the game's influence on society that Bigham sees it alongside some of the best kids' games of all-time and able to hold its weight with any age released on any console.

"I hope it's one of several pillars of games that truly engage kids," Bigham said. "Psychologists and teachers have long known the tenets of boring pedagogy and those of engaging patterns. Carmen is a bit of gaming history in this regard. I can't dare compare Carmen's success to this game, but I feel it also shatters the wall of boring and is immersive and effective: *Minecraft.*"

Richard Rouse III, *The Suffering*

The Shining in the Darkness

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Blending survival horror, action and first-person shooter controls in a largely third-person experience, Surreal Software's *The Suffering* is a difficult game to pin down to a genre. Embodying the brutality, cleverness and uniqueness of the golden age of Midway Games, over a decade after their biggest hits, *The Suffering* was one of the publisher's last big hits not named *Mortal Kombat.* Selling over 1.5 million copies combined on the PlayStation 2 and Xbox, it's a definite success, but not quite a classic. Cult in the fact that its storytelling devices were and still are used more in a film than in games, it set the tone for the types of narrative a game could possess moving forward. Released years before games the likes of *Shadow of Mordor*, *BioShock* and *Infamous, The Suffering* was able to connect the audience through their own choices.

The Suffering stars convicted murderer Torque, who is on death row in a prison off the coast of Maryland for taking the life of his wife and two children. Pleading his innocence, Torque (and the player) blacks out during the event and can't remember what happened. Soon enough, an earthquake shakes the foundation of the prison and Torque to their cores. To make matters worse, supernatural beings infest the facility, forcing Torque to battle his biggest emotional demons. Now able to escape, Torque must find his way out and discover what really happened to his family, along the way discovering secrets about the facility he wasn't ready for either.

While the game's story ended up as a deep, intelligent and dark one, the game's creator, Richard Rouse III had a different idea as to what it could be originally. According to Rouse, the title Midway initially requested was a *Devil May Cry/Resident Evil*–type game with environments similar to *Half-Life 2*. But as time went on, he

and the rest of the team realized that just wasn't going to happen. From those early talks, the uniqueness of *The Suffering* was born. While fans of the aforementioned games wouldn't get their wish, gamers looking for something different got the type of game that was never done before.

"Midway wanted a horror game and we had discussions internally about a horror game and we threw around a lot of ideas and a lot of different people were involved in that, though I was the one that wrote up what our brainstorm had come up with," Rouse said. "We discussed those ideas, ruled out a few and then designed a game that was set in a small town and there was a science experiment that went wrong and weird things are happening in the town and it's kinda spooky blah blah blah. I went to go write it up and I told the head of development, 'Hey guys, I think we just designed *Silent Hill*. We don't want to do that, right?' So then we had an artist on the team named Steve Allen, who suggested that we do a horror game set inside a haunted prison. So the studio said, 'What about that prison thing?' That's when I went and wrote it up. I ended up writing a two-page description of the game that's what we ended up making. The game was originally called *Unspeakable* and I had Torque in there, that he was divorced and killed his family, but we don't know if he did it—that was all there. Sticking to an original treatment like that throughout development. That just almost never happens.

"I spoke to him [Allen] about this over the past year or so and I said 'Hey, do you remember that? How much of the game was based on your idea?' And he said, 'No, the game wasn't based on any of my ideas, except for the prison thing.'"

But once Surreal got their heads together and got their story straight, things took off. The fact that Midway loved what they saw from the team in development gave Rouse and the team the ability to develop a game that didn't have to be like anything else. Rouse's previous project, *Gunslinger* failed because, according to him, it was too ambitious, but with a more grounded sense of what he wanted to do with *The Suffering*, Rouse was able to pull off the morality system he wanted and tell a unique story that didn't fall into any stereotypical gaming clichés. From the beginning of development,

Rouse made sure his team knew they didn't want to emulate anything. They had to be different.

"There was a tendency [in development] to say well, *Resident Evil* did this thing, let's do that and I would often have to say, 'Well, that's not the game we're making,'" Rouse said. "When you're making the first edition of something, it's always a challenge. You have that fight over and over again. And that challenge doesn't just come from the publisher. It comes from the team, too, who know that something isn't working, and they know something that does work—let's just do that. Sometimes that's a fine decision to make because you don't want to reinvent the wheel constantly, but you always have to stay true to what you're doing differently because, at the end of the day, players aren't coming to you for a watered-down *Resident Evil*; they're coming to you for something different. Something only you can give to them. Sticking to that is always tricky."

Richard Rouse III's *The Suffering* helped reestablish Midway Games on the Xbox and PlayStation 2.

If *The Suffering* can be called anything over a decade after its initial release, it's different. There's more accountability in this game than any *Resident Evil* or *Devil May Cry* before it and its story is deeper than any of the games in the aforementioned series released after. That has everything to do with the constant choice players are forced to make down every dark hallway. Throughout the course of the game, your interactions with characters will craft the ending to the story. The way the game does this is intelligently sneaky, almost like a film, but more like a book. When you approach certain characters, you'll hear Torque's wife implore you to help them, while a demon will tell you to kill them. By doing neither, you open

up another possible ending. By the end of it all, your choices dictate the ending of the game you see. Able to check your morality throughout the game by looking at a picture of your family or at yourself, the gamer is constantly aware of their actions. With minimal cut-scenes, the gamer is forced to deal with voices in his head, dark environments and supernatural entities fighting for your soul. There's constant introspection on the player's part. You're always looking at yourself in a metaphorical mirror of sorts.

How you get to the point where you look at yourself for the final time is the difficult part. There are simply so many ways to kill enemies throughout the game that you'll have to fight yourself throughout gameplay if you want the "good" ending. Being able to kill people via electric chair, lethal injection and firing squad gave the game a ton of hype and fueled controversy before the release as well, all things Rouse said that Midway loved.

"They were always super onboard," Rouse said of Midway, "You've got to remember that Midway built their brand largely on *Mortal Kombat*, a game that respects no boundaries. Sure it was more stylized, sometimes cartoony violence, but there was no limit. Midway was seen as more of a no-holds-barred company and brand. So when we started going for what we wanted to do with the game, they were onboard. The interesting part of working on a game is knowing who your audience is and who you're talking to about the game and I don't remember talking to Midway about capital punishment and some of the thematic parts. We were talking more about the gore and decapitation systems and that sort of thing they appreciated. But all the pieces worked together. It's not like we were misrepresenting the game. We were just emphasizing the stuff we knew they'd be into. Making it M-rated and having coarse language in there were all things we felt strongly about creatively and things we knew Midway would like, so that's what we tended to talk about and Midway was always into it."

The weaponry in *The Suffering* is extensive as well. Gamers can use a shiv, axe, flash grenades, TNT, shrapnel grenades, Molotov cocktails, M2 Brownings, flamethrowers, .357 revolver, Tommy gun, dual revolvers and a shotgun to put their enemies away, in a variety of ways. Although Rouse has said the game could have used

another weapon, you never get the feeling that you're using the same weapon throughout the entire game. Although a fictional game, the heart of the game is very much set in reality. Torque is trying to escape prison; he'll simply use whatever he can to kill and escape. That point is always beautifully illustrated in *The Suffering*. However, unlike most survival games, *The Suffering* gives you far more ammunition and puts a pedigree on exploration, separating it from the genre almost entirely. Your safety is always in danger, but you've got a lot more leeway than in say *Silent Hill* or *Resident Evil* games where you could be killed at a moment's notice. As stated before, away from the boss battles, there's always a question in *The Suffering*—to kill or not to kill. Because of that, Rouse prefers that *The Suffering* be called a survival/action game.

Torque's insanity meter plays a huge role in the game blending genres as well. Once the meter fills up, Torque is able to transform himself into a monster. While in this form, Torque can literally tear enemies in half and string together combinations of moves that he can't do in his human form. However, this naturally comes at a price. While in this "monster mode," your health will gradually decrease. If you don't switch back in time, you're dead and its game over. This element spiced up the gameplay considerably and instantly made the game different from *Resident Evil* and *Silent Hill*. *Devil May Cry* fans may still feel the similarities here, but those all go out the window when *The Suffering's* setting is put into context.

Being a "haunted" prison, the Abbott State Penitentiary on Carnate Island in *The Suffering* has a wild history. The way Rouse and his team share that information is by the enemies that appear throughout the course of the game. From the Puritan witch trials, slavery and various methods of capital punishment, *The Suffering* tackles all of them. Your own feelings on these moments of history will be put into question throughout your playtime. That was the point. Rouse, a published author (*Game Design: Theory & Practice*) has always loved researching and forcing players to think about the environments they are playing in.

"I like that we are able to have a slave ship wrecked on the island and have a weird story about that," said Rouse. "It's not very often that you see something like that in a commercial game, particularly

not in 2004."

Another element of the game that makes *The Suffering* unique is that it controls like a first-person shooter. While it does have a first-person mode, it is largely a third-person game. How it got to this control scheme has everything to do with the fact that Rouse felt the game, already in development for six months at the time, was boring with a more traditional lock-on targeting system similar to *Devil May Cry* and *Syphon Filter.* A difficult decision to make that forced the team to work backward while still trying to finish the game, it was one that forced Rouse and his team to look at the project more objectively. Looking back, Rouse calls it one of the "darker moments" of the game's development but was pivotal to turning the game into what it eventually became. Now playing more like *Max Payne, Halo, Medal of Honor: Frontline* and *SOCOM,* it was a lot tougher and also appealed to more gamers. It also erased the majority of resemblance the game had to *Devil May Cry*, a series Rouse was never immensely fond of anyway.

The Suffering is a third-person shooter, with first person controls.

The decisions you make in *The Suffering* are never easy.

This, in fact, could be the moment in development that ended up making *The Suffering* something special as well. Midway was so impressed with what they saw in the game that they gave Rouse and his team even more time to finish *The Suffering*. Meeting their original completion deadline, Rouse and Surreal now had an opportunity to polish levels and bosses, add a few cut-scenes (this was something Rouse was originally against as he wanted the narrative to be told during gameplay, to be different from *Resident Evil* and *Silent Hill*) and put the game through playtesting. It's here that he learned a lot about the game as well.

"The very first human character in the game that you get to meet was called 'the guard.' He was originally a completely different character, a doofus," said Rouse. "He had always been seen as a small character, so I hadn't put a lot of time in making him unique and interesting in any way and I remember one of the play testers just called me out on that. He didn't know that I had written it and

that's important when you're doing play testing to not let people know that it's your thing they're playing—they're just giving you feedback. He was like, 'That character is so boring. There was so much they could have done with him. I just didn't get it.' I realized he was right and we went back and rewrote him and he became more of confrontational character that hates inmates, doesn't really trust you, but begrudgingly does. He's still a very small character compared to the other characters in the game, but since he's the first, it's important that he's really good. That one play tester really crystalized the realization that every single character needs to challenge the notion of what you're doing and who you're supposed to be."

With the story fleshed-out and polished, *The Suffering* was released on March 8, 2004, and ultimately garnered an 80 percent score on rating aggregator Metacritic and sold 1.5 million combined copies on the Xbox and PlayStation 2. A sequel, *The Suffering: Ties That Bind* was released in 2005 and at one time, Midway and MTV Films were even in discussions for a film based on the series. In the end, however, *The Suffering* played a huge part in Midway's short-lived "return" to the frontline of game publishers. Surreal Software was eventually bought by Midway. After Midway's bankruptcy in 2010, Warner Bros. obtained the rights to the franchise.

Ultimately a tough first-person shooter, in the body of a third-person action game with survival horror elements, with the mind of a film or a role-playing game, *The Suffering* deals with heavy topics and tells a rough, but deep, profanity-laced, gore-filled and mature story that will force you to think throughout. That's anything but a *Resident Evil* or *Devil May Cry* clone.

"For the time I don't think there were a lot of other games that dealt with the type of subject matter we did, such as the death penalty and some of the dynamics of life inside a prison," Rouse said. "Things have changed a lot since *The Suffering* came out, particularly with indie games exploring a lot of challenging subject matter. But when people bring up *The Suffering* and its subject matter, often they'll say that they went and read about some of the topics we touched on in the game. That always makes me happy."

Rob Fulop, David Crane and James Riley, *Night Trap*

The Truth About Catz and Dogz

Inspired by classic schlock horror films and originally intended to be a launch title on the Hasbro VHS system, the NEMO, Rob Fulop and James Riley's *Night Trap* is undoubtedly one of the most unique cult games of all-time. One of the founding fathers of the Sega CD full-motion video games library alongside titles such as *Ground Zero Texas* and *Sewer Shark* (another Fulop production) it's an intriguing game that was never supposed to end up on the "too naughty to play" list. With odes to *Maniac Mansion* and classic horror films, it's a wild throwback and timepiece title that'll never be done quite the same way again. Also the landmark game for the failed Hasbro system the NEMO and the game's place in video game lore is an important one.

If you've ever played the runaway hit *Five Nights at Freddy's*, then you basically already know how to play *Night Trap*. The premise is simple—a house is being invaded by futuristic vampires called augers, who attempt to steal the blood of the people inside, who, for the most part, are attractive young women. Utilizing the home's security cameras, located in a variety of places, you can see what's going on all over the compound. As you switch between the game's eight cameras, you'll find augers sneaking around the home. If your timing is right, you can spring traps on the creatures of the night and capture them. There's no blood there either—the augers get locked in rooms or fall through holes in the floor. It's a silly and fun experience. The object of the game simply is to protect the inhabitants of the home. It's not even to kill your enemies. Because of the subject material, *Night Trap* was a different experience than running around with icons the likes of Mario or Sonic. It felt like you were creating your own movie. Truth be told, it basically was.

"In the early '80s, I was working with Nolan Bushnell to develop

'live action interactive' applications in advertising, retailing and games," Riley said. "Rob Fulop introduced me to Tom Zito [at another Nolan company] that had a 'digitizer' that could be connected to a VCR allowing consumers to interact with video, essentially providing four video streams simultaneously, each at 15 fields a sec.

"Tom (and Nolan) wanted to create some demos that demonstrated what a live action interactive video game or what we called a 'movie game' might look like. My interest at the time [1986] was getting away from 'branching' and/or 'changing the ending' type applications being developed for the video disc [which I found repetitive and boring]. So I pitched them on a number of 'non-branching' concepts one of which was 'Scene of the Crime,' wealthy guy uses new surveillance & security system—operated by player—to protect his safe and determine who the thief was among family and friends. Hasbro was so thrilled with the demos, they gave us $28M to form a company [called ISIS at the time, which later became Digital Pictures] and our first production was *Night Trap*."

However, its road to eventual release was a journey within itself, one a movie could easily be based on. Although the technology was the backbone of the project, the story that drove it all changed a few times before Riley and Fulop settled on something they were happy with. "When we were tasked with coming up with ideas for an actual product, we brainstormed a list of possible story lines and gameplay centered around the multiple camera concept," Fulop said. "One of these ideas suggested by Jim involved a series of trap doors which the players could also control along with the cameras. This idea resonated with the NEMO team, thus *Night Trap* was given the green light."

From the cheesy acting and wacky sound effects, it's never supposed to scare you, but it does keep you on the edge of your seat. Away from a few jump scares, *Night Trap* was far from gory and even farther from the pornographic realm. It doesn't feel like any other video game you've ever played and is a different experience than your favorite B-horror movie, even if it was filmed exactly like one.

"The development, production and editorial process was very

challenging, mostly because developing a compelling movie is difficult enough, but to have the technical limitations, numerous variations in actions and outcomes and time limitations within each scene/ location [characters having to enter and exit at precise times] made every stage of the process more difficult," Riley said. "In many cases, we had to give up the kind of coverage we'd like to have [even with self-focusing/ auto lensing premise] and comprise story and blocking, to keep the game elements working. Even with a great Director of Photography like Don Burgess [*Forrest Gump, Cast Away, Spider-man*] we had to over-light everything because the engineers were worried that the blacks would over pixelate in the final product. In spite of all those challenges and frustrations however, the attitude was surprisingly positive and exciting. Mostly because we were creating the first live action interactive movie … or at least, exploring a new frontier in interactive narrative."
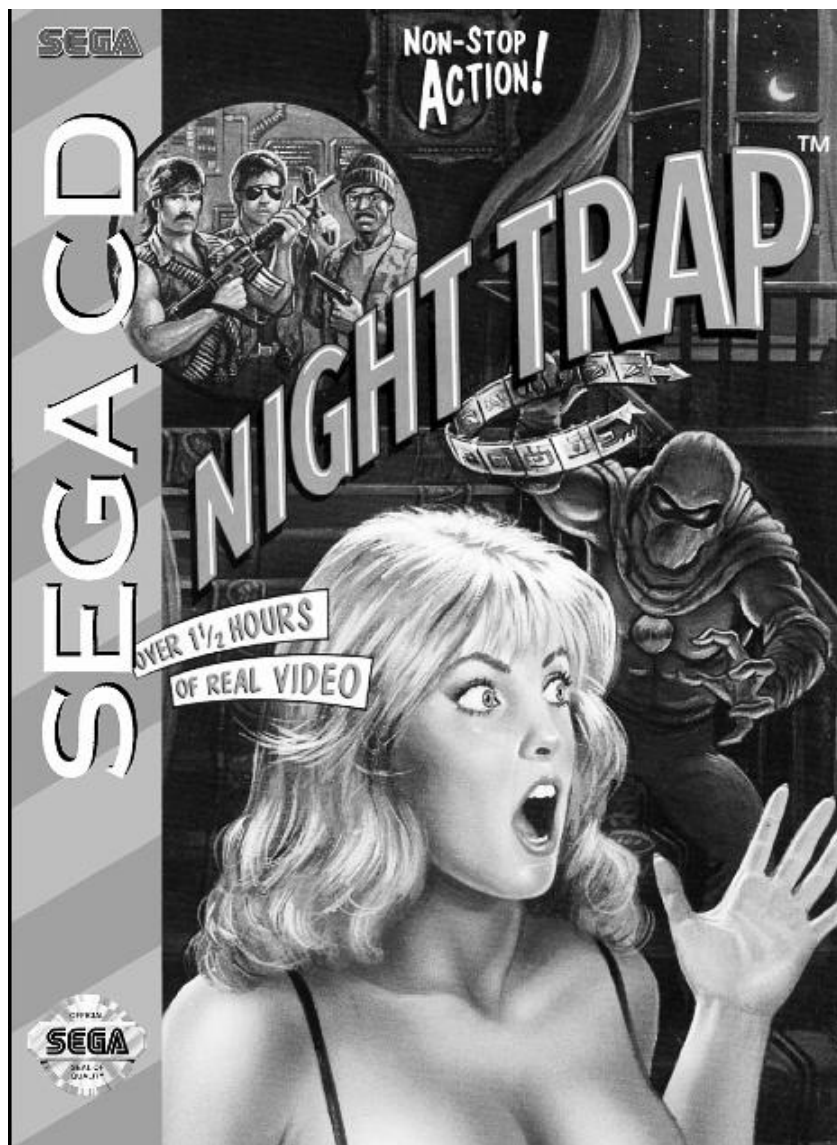
Night Trap's cover may be a racy one, but the gameplay is anything but pornographic.

Simply put, thanks to the gameplay methods at play and movie-feel, *Night Trap* was unique. Over 25 years later, it's just as eclectic as

ever. That has a lot to do with the campy horror plot. "The script for *Night Trap* was mostly written by Jim—I gave a lot of input into how the 'game' should flow, but at the end of the day, *Night Trap* is an interactive 'movie'—and development was pretty similar to that of making a low-budget film," Fulop said. "A live action producer was retained, who brought in all the standard departments needed —casting, cinematography, costume, makeup, catering, etc. Jim was both writer and director, though we brought in another writer to help polish the actual dialogue. It was all very exciting as we all knew we were breaking 'new ground'—I spent a few days on the set at first, and then came to realize there really wasn't a whole lot for me to do there. Jim would typically spend the evenings and mornings frantically rewriting the next day's shooting pages, as so many things changed along the way.

"For instance, it was critical that the action in one room matched up with what was happening in another room. If a character walks out of the living room and goes into the kitchen, that character needs to show up in the kitchen footage at the same moment he leaves the living room. Such things caused an avalanche of continuity details [stuff to keep track of], since the living room action was shot weeks before the kitchen footage. Copious handwritten scribbles on the script had to be detailed and passed along, all the way thru the final editing. The bible of the show was the Timeline, an eight-foot-long taped together paper banner that kept the record of what happens at what time."

According to Fulop, *Night Trap's* gameplay is so different that he'd prefer not to call it a game at all. "The game mechanics of *Night Trap* consist of the player learning where they need to be inside the 'script' at the correct time in order to trap the vampires," Fulop said. "It's pure trial and error. You play through a few times until you have a timeline of events mapped out in knows the timeline of events—it's trivial to jump to the right room at the correct time in order to trap a vampire. So basically, the game mechanics were layered into the script itself. *Night Trap* plays more like a simple pencil and paper 'maze.' Once a player figures out how to navigate the maze, the game is 'solved.' Thus, in my view, *Night Trap* is not technically a 'game' at all—it's a puzzle—and like most puzzles—it has limited replay value once the puzzle is solved."

Even with a thin level of actual gameplay, the development of the game elements of *Night Trap* were far from simple. That's because a game of its kind didn't exist. Fulop was completely reinventing the wheel. "The biggest challenge in developing *Night Trap* was the precise continuity and 'blocking' needed in shooting the scenes, followed up with careful editing to make sure everything lines up," Fulop said. "When one shoots any acted scene, the director really doesn't know exactly how long the scene should play out—it's only when the actors are on the set, walking through their lines, that you really know the actual duration of the onscreen action. In *Night Trap*, since the parallel action is occurring in different locations at the same time, the director is often bound by 'time'—i.e., a scene needs to be exactly 34 seconds long with a character entering the scene in the 21st second, since then is when they walked out of the parallel scene. The resultant squeeze of time can appear somewhat unrealistic to a viewer—if you notice—many of the scenes appear somewhat 'rushed' or 'spread out'—such rushing and spreading out was either done during the shooting of the scene—or trying to do something in editing to add or take away time.

"Keep in mind there is no real 'house' in *Night Trap*—the rooms are a series of sets that were set up and then disassembled when all the material in that room was shot. Thus all the action in any room has to be shot before moving on to the next room. So the first room was easy since there were no time constraints on the action. Subsequent rooms became more and more unwieldy, which is why Jim spent the first few hours every morning rewriting the day's shooting script to adjust for actual running time of the show. Nobody had ever done anything like this before, it sort of resembled a standard movie shot, with the layering of sometimes awkward time constraints on the scenes that nobody other than Jim and myself really understood."

The time and effort that went into *Night Trap* should have been recognized as innovative to the general public and the video game community because it was. Although there were games that tried to do things similar with cartoons, Fulop's software did it with films. Although *Night Trap* was expensive to develop and a risk to release, Fulop's creation changed the industry. Regardless of the innovation it was, the United States government saw *Night Trap* as something

quite different. To them, if was like setting kittens on fire and eating them with a Middle Eastern dictator.

To politicians and those not in touch with the medium, video games are weird. They'll never "get" why people get satisfaction out of them. As a result, a game such as *Night Trap,* which was treading in its own pool was incredibly unusual. Infamous due to the 1993 United States Congressional hearings, where Connecticut democratic senator Joseph Lieberman destroyed it for its "graphic depiction of the violence against women" and "strong overtones of sexual violence," *Night Trap* will always be a game mired in controversy. However, if the game actually became what Riley originally intended it to be, it could have been far more daring.

"The point is, the dark and edgy, fast moving, challenging live-action interactive experience [ninjas move fast and are hard to see in the shadows] that I originally pitched, turned into a slow, goofy, brightly lit, homogenized experience [with augs that moved like they were wearing wet diapers]," Riley said. "Much of this was Hasbro wanting family entertainment, 'non reproducable violence' and way too many chefs in the kitchen. And even then, the game was considered so violent that it caused the ratings mandate and is still considered to be one of the more violent video games ever made … go figure."

Regardless of originally being a Hasbro title and an effort made to keep the game family-friendly, the reception was so harsh that at one point of the hearing, the former vice presidential nominee, who was obviously on a crusade to become the king of the fun police, said, "It should simply be taken off the market" and the game and games like it "teach children to enjoy inflicting torture." Wisconsin democratic senator Herb Kohl took it a step further and said, "Games like *Mortal Kombat* and *Night Trap* are not gifts that responsible parents give."

While games the likes of *Doom*, *Lethal Enforcers* and *Mortal Kombat* were also at the mercy of Lieberman and Kohl's wrath, *Night Trap* made out the worst, taken off of shelves in the United States and becoming a footnote in gaming history, rather than be celebrated for being different and cool. While anyone today watching the hearing knows now how wrong-headed Lieberman and Kohl were—

and probably still are—about the industry, their words had a lasting impact on *Night Trap* and Fulop, who understood why his game made out the worst during the hearings.

"A politician lives and dies by the approval of their 'base' of supporters," Fulop said. "*Night Trap* was low hanging fruit—one could attack the game—come across as 'pro-family values' and nobody could say one word in defense. If somebody says 'so and so is bad for children' it sort of leaves it up to the makers of whatever was attacked to prove that actually, their offering is good for children—and that's pretty much impossible to do. It's just as easy to attack basically anything that kids like—candy bars, merry-go-rounds, or comic books—and people have done just that. So Lieberman gets to instantly come across as 'pro-family' by attacking *Night Trap,* and doesn't even have to mount any sort of defense—all he needs to say is 'This is bad for kids,' and the damage is done, meanwhile he looks like Captain Family Values."

How Lieberman, a man by that time in his 50s, who didn't know the difference between a lemming and a goomba, came across *Night Trap* is a question that will be lost among other unanswerables in life. What is the more definite possibility is that Lieberman was informed of the now iconic scene in *Night Trap* that involves four augers bum rushing a woman in the bathroom and hooking her with their big, black, electrified hook and taking her away. If you've actually played the game, it's a fun scene, but was nothing compared to the wanton violence in *Mortal Kombat* or *Doom* and it certainly wasn't a gunshot to the head from *Lethal Enforcers*. However, here, Lieberman saw an opportunity, one that could help him secure the family vote. He went for the jugular. *Night Trap* was something much different than *Mortal Kombat* or *Doom* and he used that to his advantage. More of an interactive slasher film, it was designed to be fun and immersive, like a horror flick—that you could control. It was easy to attack. And it was attacked. By the end of it all, *Night Trap* was off shelves in the United States. In an even crazier sequence of events, Fulop's girlfriend at the time left him because of the controversy.

"Her boyfriend made a game that was being denounced on the nightly news for being overly violent towards women," Fulop said.

"Regardless of my 'defense,' regardless of the fact that *Night Trap* was being used as a political hand grenade, the senate found a bunch of self-acclaimed 'experts' to come give their personal verdict on the game's theme—it's not like we invented the age-old theme of 'innocents being chased by monsters.' So she was embarrassed and given her liberal educational background, she found it difficult to co-exist with me and the questions from her family and friends. People don't pay much attention once a product is being slammed by the media—the product is pretty much guilty as charged—when you hear about how somebody found a bad thing in their fast food —you sort of stop going there—it's not like you bother looking into the matter personally—one or two bad reports is enough to create a negative judgement in your mind."

There were several positives however that came from the fallout of the United States sudden interest in the video games. Positives that would make it a lot tougher for the government to get involved in the goings-on in the industry ever again. For that reason alone, *Night Trap* is both iconic and cult.

"With the formation of the ESRB and its game ratings, the game industry did the smart thing and created a system of self-regulation," *Pitfall* and *Boy and His Blob* creator David Crane, who also served as a programmer on *Night Trap*, said. "There was no such rating system in place when *Night Trap* was published. The game was no more risqué that any number of mad slasher movies filled with bikini-clad beauties. And it was far less violent than *Invasion of the Body Snatchers* or any other movie of that ilk. But it was a video game, and video games are played by our kids. So while a parent would close his or her eyes to the fact that the kid was sneaking into R-rated movies, they couldn't justify ignoring what he watched or played in their own home. In my opinion, opportunistic politicians created a witch hunt over a complete non-issue. I found it a complete waste of time and taxpayer money. The only good to come out of it was to help fuel the drive to create a system of self-regulation in order to keep Washington out of video games."

Way before the game created controversy in Washington however, it was just a cool game looking to do something different. With

Fulop at the game's helm, it was destined to get attention. An industry veteran at that time, Fulop had an extensive resume on the Atari 2600 that includes programming and design credits on the some of the finest and engaging games on the console, *Missile Command* and *Cosmic Ark*. Originally content on programming early in his career, Fulop eventually learned he had an eye for designing and after that, wasn't scared to take chances. When interactive movie games became a fad with *Dragon's Lair* becoming a massive hit in the '80s, Fulop saw it as an opportunity to tell different types of stories, but this time with full-motion video. With already a ton of respect in the industry at that time, having Fulop at the head of the project gave *Night Trap* a ton of credibility when it was announced and eventually released.

"Rob is one of the good guys. He is humbler than he deserves to be and he is one of the more thoughtful of the old school designers," Crane said. "He didn't just make games, he thought a lot about them philosophically. One of my favorite quotes from my fellow game designers is one of Rob's:

"'It is important to recognize in a game that 'challenging' does not simply mean 'hard.' You want hard? Hard is easy: You enter a room with a door on the far side that is guarded by a wizard. You ask him to let you pass. He says 'I'm thinking of a number between one and a million.'

The timeline flowchart James Riley created and used throughout writing, shooting and editorial process is shown on the desk here.

"I totally agree… hard is easy. But in the whole history of video games, we have yet to come up with a formula to use to ensure that a game is just hard enough to provide a challenge, while still retaining that elusive notion of 'fun.'"

Although Crane's involvement in the game was, according to him, "peripheral," on both the NEMO and Sega CD versions of the game, Crane is a huge supporter of the game's legacy. Crane believes *Night Trap's* place in video game history shouldn't be tarnished by the people that couldn't—and never will—understand it. Seeing it more as the advancement in the industry which provided a new way of telling stories, Crane saw it as a massive ongoing challenge and one that Fulop made work. *Night Trap*'s original fate was also, in its own way, tied to the failed NEMO console.

"*Night Trap* was unique at the time for the obvious reason that it used live video for all gameplay. Less obvious to non-game designers was the complexity of the timing of each video clip—affecting the filming, editing, and programming. *Night Trap* started with a similar complexity to the laserdisc games like *Dragon's Lair* where a game event has one of two video outcomes. In addition to outcome-switching, *Night Trap* adds nine or 10 different settings in the house, any of which might have live video action happening in parallel. And the player had complete control over which room or area of the house they wanted to watch.

"If I recall correctly, the system [NEMO] only allowed two live channels at a time," Crane said. "So if a player wanted to watch the girls dancing in the living room and the monsters were after one girl in the upstairs bathroom, that used up the two live video channels. The player watching the living room wouldn't see the monsters lurking in the upstairs bathroom, and vice versa, but they had to exist in the video stream simultaneously. Continuity became the nightmare. On the one hand, if there are two live channels playing, one channel had to finish before any other action could take place somewhere else. And worse, there were cases where the action was in the living room, but one or more people would walk from the living room to the kitchen, and there had to be live video of the characters entering the kitchen at the same time those same characters were leaving the living room. And the player decided whether to continue to watch the living room or to follow the action to the kitchen. All that synchronization had to happen within fractions of a second."

With so many variables at play, Crane, an undoubted icon in video games, has very specific feelings on what Fulop and Riley did on *Night Trap*. "Rob Fulop created a computer program to manage all of the parallel action—basically a computerized shooting script," said Crane. "He and the film director and his crew were breaking new ground during each day of shooting. I can picture Rob on the set with a stopwatch during filming… 'That scene took 5 seconds too long—try it again.' They all pulled it off, and all of the video was in the can before I joined the team. So with all of the hard part done, I was brought in to both to help define the hardware platform and to help craft the software, including *Night Trap*. I may have had

some small creative input, but mine was basically a programming task."

As with any type of new groundbreaking technology, the risk behind *Night Trap* was huge. Planned as one of the key titles for the Hasbro NEMO console, the game was originally filmed in 1987. However, issues with Hasbro put an end to the console and almost killed the game entirely. It wouldn't be until 1992 that the game hit the shelves. In that time span, the NEMO never surfaced and the half-decade-old game found its way on the new Sega CD platform.

"The history of *Night Trap* is really a requiem for the NEMO system. NEMO was a hardware gaming platform under development by Hasbro that used an ordinary, linear VHS video tape to carry multiple live streams of video encoded in such a way as to allow the appearance of video switching. Like many technologies, it was indistinguishable from magic," Crane said. "To accomplish this, the system contained more dynamic RAM memory (DRAM) that any other gaming system, or any home computer of the day. As the NEMO was ready to go into manufacturing, there was a worldwide DRAM shortage due to a boom in sales of PCs. The price of DRAMs skyrocketed. Hasbro went to their toy buyers with two price points. There was the wholesale price point from before the surge in DRAM prices, and the projected wholesale price during the bubble. In rough numbers those were $200 vs. $280.

"The Toys"R"Us buyer said, 'With my markup, I can buy the systems at $200 and still make it an attractive buy. They will fly off the shelves… I'll take every unit you can manufacture. At $280, after markup, it becomes a luxury item up there with color TVs. If that is the price, cancel my order.' Hasbro canceled the project instead."

Eventually released in 1992 on Sega CD, *Night Trap* actually benefited tremendously from the advances from the VHS format to the then new CD format. And while that all led to a far better game that includes Riley, Crane, Fulop and *NBA Jam* creator Mark Turmell on the credits, it didn't necessarily help the game avoid its eventual fate.

"The Sega CD had challenges that the team had to overcome. Its

live video was not very good, so a lot had to be done on the video codec," Crane said. "On the positive side, the Sega CD wasn't limited to two video tracks. Video switching could be done by seeking to a different point on the CD. That made it basically a port of a finished (although never published) game to a newer, more capable system. The key factor of a port is that the game has been designed, programmed and tweaked. So you start way ahead of the game. The Sega CD port benefitted from all of the hard work of Rob and the video crew. And while I am credited on the game, my total involvement on the Sega CD port was probably two hours."

Having spent a lot more time on the game, Riley has his own feelings on why the game wasn't as appreciated as it should have been. "I wasn't surprised by the FMV critics, but I felt the whole concept of live action interactive was mis-cast," Riley said. "Most people don't realize that *Night Trap* was developed for VCR owners (in late '80s), not game console owners (in early '90s). When Hasbro pulled out (1989), Tom Zito licensed the titles to Sega (1992) when their console CD player came out (promoting the fact they now offered real image video games) which at the time was a significant feature compared to the simple graphics and cartoon animations of the time. But once the graphics of games got better (mid–'90s) it was a silly comparison (and debate). Unfortunately the early development of interactive real image experiences went down with the FMV baby and wasn't really explored again until just recently with the emergence of VR, AR and immersive environments."

Controversy and aside, the positives *Night Trap* left the video game industry far outweigh the negatives. Although Fulop was a developer who had achieved massive success before, to him, his greatest successes came after *Night Trap*. The creator of the *Petz* (*Dogz* and *Catz*) franchise, now owned by Ubisoft, has sold more than 22 million worldwide copies since 1995 and easily created the genre that led to the now mega-popular *Nintendogs* series.

Rob Fulop has been in the industry for over 30 years and has hits on nearly every console he's created on.

"To me, *Dogz and Catz* flowed directly out of how embarrassed I was after the *Night Trap* public dunking. It really happened right after I saw Bob Keeshan's [Captain Kangaroo] testimony to the U.S. Senate regarding *Night Trap* [once again, I very much doubt he had ever seen the game itself]. But enough was enough—bringing up Captain Kangaroo was just too much. I decided then and there to make something so incredibly cute, that nobody could point to it and cry 'foul' again—least of all Captain Kangaroo—thus the digital puppy dog was born. To me, the real validation of *Night Trap* was the subsequent success of the *Petz* product line we enjoyed at PF.Magic [the development firm Fulop started after *Night Trap*]. If it were not for the *Night Trap* controversy, PF.Magic would never have

created *Dogz* and *Catz*, which probably remains the game I'm most proud of since it had such wide appeal across age, culture and gender."

Now a father and a veteran of the video game scene for over thirty years, Fulop has seen how the sands of time have changed the industry. In his case, even his most polarizing and positive creations are destined to be lost forever.

"It's sort of sad working within a creative medium where people need specific, often long obsolete and forgotten hardware/software to experience our work," Fulop said. "My young daughter can't play anything I ever made in its original form—*Dogz and Catz* ran on Windows 95, *Night Trap* runs on Sega CD, *Rabbit Jack's Casino* ran on the old AOL platform. I guess I could haul out my old Atari VCS [2600] to show her *Demon Attack* or *Missile Command*, but what a pain hooking up to the TV, etc. Ditto my work on the long gone CD-I platform. Current work on social games will be obsolete as early as next year—kids growing up playing last year's *Farmville* won't be able to go back and play the same version even one year later. And we all carry such fond nostalgia for the things that delighted us in our younger years. This lack of portability to the future is not true with the written work, with a song, a television show, or a movie. One can read *Tom Sawyer* as a kid, and your kid can read the exact same book. Or see *The Wizard of Oz*, my daughter is just as frightened by the Wicked Witch of the West as I was 50 years ago. *I Love Lucy* is just as funny as when my parents enjoyed it 50 plus years ago. And my daughter can still enjoy all of these things in their original form. Yet she can't play *Dogz*. At least not without a serious amount of effort on my part. And that's just sort of sad, the fact that interactive entertainment is linked to a specific technology, which is always obsoleting itself, remains an often overlooked black mark in the development of the entire genre of interactive games."

In an ironic twist of fate, Kentucky-based developer The Screaming Villains and Limited Run Games announced in April 2017 that they would release a remastered version of the game for the Xbox One and PlayStation 4. The new version would run at 24 frames a second (the original ran at 12 or 15 frames a second according to the Screaming Villains) and feature improved sound.

"We're currently in an era of gaming where remakes/remasters/ whatever are very common, so why not remake a full motion video game? Those games from the early '90s are all more deserving and long overdue for a remake and were just victims of bad hardware," Tyler Hogle, a developer from Screaming Villains. "An example I always like to use is *DuckTales: Remastered*, which was released in 2013. The original game that was released on the NES in 1989 was already an awesome game and wasn't necessary limited by the hardware it was originally intended for. FMV games, on the other hand, were extremely limited due to the picture quality being determined by the hardware it would be running on. It just wasn't ready during that time. With it being the 25th anniversary it was definitely time and basically became a 'now or never' situation. When *Night Trap* was first released, I was only 10 years old. I'm now 35 and working on an updated version. This version will most likely appeal to the people that played the original, so us gamers from that era are starting to get to that age where we don't play video games as often anymore. When you tackle something like *Night Trap*, it makes more of an impact when you bring it back on its 25th anniversary instead of some other random year. It just seemed like everything lined up perfectly for this to happen."

The fact that the remaster isn't being handled by Riley or Fulop might scare hardcore gamers, but Hogle and his team are focused on making the anniversary edition a special one. Although the original source code doesn't exist either and Hogle and his team had to design the game from scratch, he's admitted to watching the "film" non-stop for seven months in order to get it right. "If I showed my kids an Atari game from the early '80s they're most likely going to look at me cross-eyed. Those older graphics just don't appeal to today's gamer unfortunately. Load times were also cut out completely during actual gameplay so now you no longer have to wait for the video to load when you switch to a different room, which actually makes the anniversary edition feel more 'fast-paced' when compared to the original. I also tracked down as much bonus content as I could possibly find in order to make this version of the game more special for the 25th anniversary."

In the end, Crane, Fulop and Riley each have their own thoughts on how they'd like the game to be remembered. However, the thoughts

of the three are somewhat in sync. While the game affected them in different ways, they understand the game played an influential role in the ongoing creativity and development of the video game medium.

"The irony for me, is that after 30 years in the entertainment business, I'm just now able to apply many of the lessons we learned back then to the new VR, AR and Immersive environments we're creating today," Riley said.

"The design and filming of *Night Trap* were groundbreaking," Crane said. "Some of the most important accomplishments made by the classic game designers came about while working around the limitations of the classic gaming consoles. The limitations of the NEMO system forced the game design team to create innovations, not just on the game design side, but touching every other discipline involved in the game. *Night Trap* should stand as a testament to the level of innovation delivered by old-school video game designers during a period when the task was so complex that fewer than 100 people in the world were capable of doing the job."

"I'm very proud of everybody's work on *Night Trap*," Fulop said. "I really credit Jim Riley as both the true visionary behind the game, as well as the craftsperson who put it together—I'm delighted to have been a part of making it, as it taught me a great deal about storytelling, filmmaking and how difficult it is to make something new."

Greg Johnson, *ToeJam & Earl*

Sega's Funky and Fantastic "Other" Mascots

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Ask any casual video game fan and they'll tell you—that iconic blue hedgehog launched the Sega Genesis/Mega Drive to immortality, all by himself. But as a formidable opponent to the Super Nintendo/ Super Famicom, more than one game played a role in the success of the Sega 16-bit console. Greg Johnson and Mark Voorsanger's *ToeJam & Earl* can not only take some of the credit for Sega's thriving in the 16-bit war, but was even one of the console's mascots for a period, helping launch the Sega Genesis light gun peripheral, the *Menacer*, with the super fun *Ready, Aim Tomatoes.* With a 16-bit sequel in *ToeJam & Earl in Panic on Funkotron*, as well an Xbox sequel (*ToeJam & Earl III: Mission to Earth*) and a next generation version in the works, the *ToeJam & Earl* franchise has continually proven itself to be a venerable one, with a cult following.

The game's following has everything to do with the main characters and atmosphere. Poking fun at society and pop culture, ToeJam and Earl look like rap stars, with hi-top sneakers, Flava-Flav chains and sunglasses. Add their California-slang and the game's chill score and the game is oozing with an atmosphere that no game before it on the Genesis can claim. Although the story is a simple one, with ToeJam and Earl stuck on Earth after crash-landing their ship, the sheer amount of enemies and power-ups make for a ton of replayability. Navigating through randomly-generated levels to find pieces of their ship, *ToeJam & Earl* is a game you can easily get lost in and one that anyone can play.

While randomly-generated levels weren't uncommon in the early '90s, *ToeJam & Earl* did it better than anyone else on the console. Add in a wonderful multi-player mode that was also one of the best of the console generation and *ToeJam & Earl* was a game you could

literally spend hours on with your friends and family. Long before *Wii Sports* got your grandparents playing video games, *ToeJam & Earl* was seen as a game that changed everything. There was no button-mashing or concepts only gamers could understand. Silly and fun, it was a game that made you see first-hand why the medium was a special one. It made you social and at times practically forced you to play with people.

The reason for this was the fact that Johnson and Voorsanger were good friends and *ToeJam & Earl* was absolutely a passion project. "There was that time at the start of the project when Mark and I were out on a camping trip at Yosemite, sitting by the fire, listening to funk music and discussing what game we might make, when we saw some weird orange lights in the sky that seems to hover and then drop behind the hills," said Johnson. "We stayed up a long time wondering if there would be anything else. Mark said he heard strange noises that night but I never did."

With the alien concept now settled on, the team was ready to work. Throughout the game's development, the very different personalities of Johnson and Voorsanger affected the project in several ways. Like a video game development version of "The Odd Couple," they always found a way to make things work though. "It was just the two of us in an office working away. Mark was always the responsible one of the two of us," Johnson said. "He hates being late for deadlines and he's very good at being structured and organized. I'm the head in the clouds, 'what day is today' guy. I made up crazy stuff and Mark figured out how to make it actually work. Mark obviously had the harder job. It's easy to think up crazy ideas… much harder to make them real."

Greg Johnson's academic background makes him an incredibly unique developer.

That Yin/Yang development approach in *ToeJam & Earl* was a match made in heaven. Voorsanger made sure everything worked the way it was supposed to and Johnson's humor gave the game a one-of-a-kind personality. "The designs aren't based on anyone or anything specific but I've asked my subconscious what it has to say about it. The answer I got was, 'sexy girls and cool aliens from the hood.' I disregard the sexy girls part because every time I ask my subconscious anything, the answer always seems to start with that," Johnson said. "As far as the 'cool aliens from the hood,' I'm pretty sure that part is legit. Something struck my funny bone about two very chill aliens who were basically like two cool black dudes from east LA, who looked at Earth and just saw a bunch of insanity. I'm

half black [on my Dad's side] and I gravitate towards characters with attitude and some cultural orientation. [I made an earlier game called *Orly's Draw-A-Story* that featured a little black girl from Jamaica.] I also have always been a huge fan of old school laid back funk [à la *Brother's Johnson*] and it seems like it just fit with these aliens."

The friendship and differences between Voorsanger and Johnson were indeed a key reason for the success of the game, but without the music, *ToeJam & Earl* was simply a very good adventure game. Making it great, the tunes in *ToeJam & Earl* got stuck in your head. They were iconic. Like the *Super Mario* and *Sonic* games, it has a soundtrack that holds up to this day and one that is easily recognizable by hardcore gamers.

"Mark and I got really lucky and ended up working with some very talented musicians," said Johnson. "John Baker [who did most of the composition] and Mark Miller [who was more on the technical side, figuring out how to push the Genesis in new ways]. I came up with a lot of the basic funky rhythms and bass lines by singing them, which is how I'm still making music for *Back in the Groove* [the upcoming game in the series], this time with two other talented musicians, Cody Wright and Burke Trieschmann. Sometimes the pieces just fall into place."

Not ironically, the funky fresh tunes add to the layer of fun and mystique of Voorsanger's level designs and Johnson's silly characters. With a few game credits under his belt before *ToeJam & Earl*, Johnson established himself early in his career as someone who wanted to take creative chances. From *Caveman Ugh-Lympics* (*Caveman Games* on the NES) and space-themed games, *Starlight* and *Star Control*, he's always used his imagination to fuel his design process. "I have always suffered from a rare disability known as 'aliens on the brain.' Both games [*ToeJam & Earl* and *Starflight*] were also filled with ridiculous humor," Johnson said. "I have a hard time being too serious or taking myself very seriously. That just seems to come out in my games, mainly because I get bored otherwise. *Starflight* was a total make-it-up-from-scratch experience and a much more complex effort. *ToeJam & Earl* was based structurally on *Rogue*, a game I loved and knew well, so it less

stressful to design. I remember I just wanted to cut loose and have a good time, which me and Mark did. We cranked the funky tunes every day and development was pretty easy peasy."

To say Johnson's motivation to make games are often hard to understand is an understatement. With a bachelor's degree in Bio-Linguistics from the University of California, San Diego, he's not your typical game designer. He's also designed board games, written children's books, knows a few languages and loves Bugs Bunny. Regardless of his uniqueness and eclectic intellectual interests, becoming a game developer just worked for him.

"Hang on…. I'm going to have to check in with my subconscious again for that one. Accessing… 'OK… Mmmhmmm. I see.' OK, I'm back. My subconscious said to tell you, 'sexy girls, and a break from school.' I'm not sure, but I think what it means is that there was no conscious connection at the time," Johnson said of his decision to focus on making games. "I thought I was just taking a break from school, before hitting grad school. In retrospect, I can see that I went ahead and started building aliens to talk to, and systems that simulated biological ecosystems, alien cultures, and language syntax systems in *Starflight*. In *ToeJam & Earl*, I went on to feed the fires of my fantasy life of Aliens meeting Humans, which was the real deep dark secret of why I was studying Bio-Linguistics in the first place. My subconscious will deny that's true, but that's just because it's embarrassed about it. I'm pretty sure I'm right."

ToeJam (right) and Earl may have been '90s babies, but they are ready to make a huge return on next generation consoles.

The look of the main characters in *ToeJam & Earl* was and still is one the series best selling points.

Once the game was released, Johnson knew he made the right

decision. "I was thrilled. I'll go ahead and speak for my then-partner-in-crime Mark Voorsanger and say we were both thrilled," Johnson said. "The game was exactly what we wanted and we were excited to see how people reacted. The reviews that came out were generally very positive and it was an exciting time. Sales were slow through the first year so that was a bit disappointing, but I'd say we were still very happy with the reception the game got. People seemed to either get the crazy vibe or not get it at all."

Now looked at as one of the biggest cult successes of the Genesis and a game that helped make the console a viable one after the lackluster debut of the Master System in the United States, *ToeJam & Earl* has the rare ability to be considered both a cult game and a classic. Its message may be a simple one, but it was superbly effective in a time when games didn't push the envelope at all. Even by today's standards, where developers have better tools and nearly unlimited ways to express themselves, there's something genuinely fun about the game. "The heart and spirit of *ToeJam & Earl* are captured in a few ideas: joyful laughter, teamwork and playful antagonism between friends, funky music and feel good vibes, and maybe the playful satire of our society, laughing at ourselves," Johnson said. "My greatest hope is that people will continue to have fond memories of the old games and the good feelings they had with others while playing and that they will have more moments of laughter and surprise playing the new game. I really want people to have a chance to relive those early experiences with a new generation. It's important to be able to connect with others in a joyful, stress-free way. It may not seem like much, after all, it's just a video game, but when you stop and think about why we work so hard in our lives, and what life is really for. At its core, connecting and feeling joy with others is probably one of main reasons we're here at all."

Over a quarter century after the release of the original game, Johnson and Voorsanger's alien duo has made an undeniable impact. While the duo no longer works together, Johnson, who has the rights to the series, is currently hard at work on *ToeJam & Earl: Back in the Groove,* which raised $508,637 via Kickstarter and is scheduled for release on PC and consoles in 2018.

"I will say there is a devoted following. I've got to meet and talk to many true *ToeJam & Earl* fans in the course of running the Kickstarter and making this new game," Johnson said. "I think it's because the original games were cooperative and accessible to non-gamer types, and light-hearted. These factors made both game one and game two really good bonding experiences for people. Powerful memories don't really come from games, they come from connections with people who are important to us. The games were just the focal point that facilitated the connection. Moms, Dads, brothers, sisters, best friends, even grandparents. I've heard a lot of touching nostalgic stories and they always involve some connections between people. Also, you might find this interesting— I've heard a few stories from some people who were large-sized who found comfort in the fact that Big Earl was big but still very cool and confident. I can't claim that was a plan, but it's still great to hear."

The new game, Johnson says, will be all about delivering the experience of the original game with, of course, superior software. "We've tried to listen to the fans and hear what they want from a new *ToeJam & Earl* game," Johnson said. "I hope we can deliver that, along with some fresh new surprises as well. I'm grateful for the chance to be able to do something like this."

But regardless of what happens with the newest addition to the series, Voorsanger and Johnson's two aliens have left a funky imprint on the industry and one that paved the way for non-gamers to appreciate the medium as more than just a fun footnote. "I just want people to smile and feel good when they think back on their experiences with *ToeJam & Earl* and the people that played it with," Johnson said. "Maybe they will be inspired to fire up some funk music and dance around in front of the mirror, or maybe call up a friend and reminisce a bit. That would make me happy.

"*ToeJam & Earl* was admittedly a weird game. It sort of landed pretty far outside 'the box.' Its stream of consciousness characters, its black culture characters, its non-video-gamey funky music, its cooperative nature and dynamic split-screen, its light-hearted nature, even the rogue-like style of the game at the time was very unusual. I hope the legacy or 'message' of *ToeJam & Earl* is: Cut

loose! Go outside that box! Feel the joy! Get crazy and have fun! Don't take things so seriously! Connect with others! Dance! Laugh! Explore! It's what life is for."

Julia Keren-Detar and Itay Keren, *Mushroom 11*

Appetite for Destruction

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With an experimental and eclectic soundtrack, imaginative world and unusual game mechanics, Untame's *Mushroom 11* is one of the most intriguing independent games of the last decade. Changing the way gamers use the mouse on the PC and the way developers think about games, it quickly became a cult sensation in development when it was announced in 2012. Years later, it is another example of how small teams with great ideas can change the industry.

At its heart, *Mushroom 11* is a puzzle-platformer where you guide your character across a post-apocalyptic landscape, collect items and beat bosses. It's how the game actually does the standard adventure fare that makes it interesting, though. Combining elements of *LocoRoco*, *Mercury* and even *Marble Madness*, *Mushroom 11*'s main character is a faceless fungus-being that the player almost pushes or drags through each level. However, thanks to a game-changing physics system and innovative control, *Mushroom 11* is more of a puzzle game that forces you to split your fungus into separate pieces to solve scenarios. Intuitive and simple to understand while playing, *Mushroom 11* is still a difficult game. In the end, what makes it so innovative is its ability to marry retro game mechanics with modern development credos such as wide player accessibility. With no real genre-defining qualities and easy-to-play, yet difficult-to-master gameplay philosophy, *Mushroom 11* is an oddity that can steal hours of your time. It's simply far too easy to get lost in the experience.

The fact that *Mushroom 11* has virtually no story (or the fact that it's expertly hidden) is another element that makes it instantly unique. All the player knows is that the earth has been destroyed. As you progress through each level, signs of a struggle, of chaos on the planet rear their ugly head. Almost like bread crumbs, the

pieces will come together, but never lead anywhere definitive. With a look and feel that'll remind many gamers of titles the likes of *Braid* and even *Limbo*, you'll quickly find yourself invested in a wild world, one that you destruct as you play. From dangerous terrain that'll take you above and below ground at various speeds, to the mutated plant life that manifests itself in the form of bosses, this world is strange, but it's an enthralling one. Again, it's up to you to put the pieces together for yourself to find out what happened—or at least what you think happened. That mystery is easily one of the defining elements of *Mushroom 11*.

"There are plenty of secrets in *Mushroom 11* and a few of them have never been revealed. One of them is the true nature of the story behind this organism. Very few people know that we've worked with a famous scientist to come up with a scientific theorem that would create a model for this exact behavior," Itay Keren, the creator of *Mushroom 11* said. "In fact, all the graphs and formulas that you see in various rooms are created to support our theorem."

Like a great song or an ogre that smells like an onion, *Mushroom 11* has layers, all of which give it its own unique personality. Take one away and the game loses its charm. All added together however, they make it truly special. The navigation of the fungus through the levels is so simple, but dangerously challenging. You will die a lot during your travels in the game and often get frustrated, but like a classic retro game (for example, *Adventures of Lolo)*, the payoff when you complete an objective is always there. While the game will require practice to get good at it, moving around is so simple and gives you no reason to stop playing. Despite your initial lack of success, you'll often want to try different things to get from one end of a level to the other. And even if it drives you crazy at times, you'll easily get addicted.

At its heart however, *Mushroom 11* is steeped in retro flavor and goodness. The side view makes it easy on the eyes and immediately accessible to older gamers. Younger gamers may see its initially simple approach as a lack of gameplay depth, but that would be a huge mistake. Similar to a game such as *Mega Man*, the average gamer will be able to get to a certain point before they understand that they'll have to practice or focus in order to advance further. In

terms of the way the game looks, that too takes elements from prior generations in the industry. The somewhat pixelated and digitized visuals are an ode to the end of the 16-bit era and the beginning of the 32-bit generation. Add in the combat patterns of the bosses and it's absolutely a game that has been inspired by the past. With the smooth physics engine that takes your fungus through holes in the ground, tunnels, up and down elevators and even across bridges, it's a marriage of both new and old-school game development with plenty of twists and turns.

The Mushroom 11 **team (left to right): Itay Keren, Julia Keren-Detar, Kara Kono and Simon Kono.**

But away from the actual gameplay, the score of *Mushroom 11* by Future Sound of London adds another layer to the overall package. One of Itay's favorite groups growing up, their inclusion in the game did more than make his passion product something special. The fact that the story of *Mushroom 11* is a vague one means that

the music is one of your only guides. Creepy at times and ambient or even experimental at others, the score is another deciding element in what makes the game an achievement in independent game development.

To create a premise for a game like this seems like it would take weeks or even months to conjure, but it was actually a spontaneous experience. A product of a Game Jam at New York University in 2012, Itay got that "light bulb moment" and just ran with it. While development was far from easy at times, the game's birth was at that Game Jam. "The game was originally conceived in GGJ 2012 with the theme being the image of the Ouroboros, the snake eating its own tail," Itay said. "Based on the theme, I imagined a creature that grows as it gets destroyed. The cellular nature of the mushroom was a natural interpretation of that idea."

The founder and lead designer at Untame, Itay is the main mind behind the game, but he's certainly not alone. His wife, Julia Keren-Detar serves in a variety of roles at Untame, from marketing to designing and developing. She's also played the game more than anyone else besides Itay. Although tiny in stature and the owner of a big smile and cheery disposition, Julia's resolve, drive and passion for the project is easily on the same level as Itay's.

Julia's ability to see Itay's vision is also one of the key reasons behind the game's success. Not their first game together, as the duo worked on *Rope Rescue* together prior, she understands her husband the way a wife has to. And the way a great co-worker should. Working part-time or full-time outside the project to help keep it afloat financially and even traveling to colleges in the New York City area to show the game to journalism students to help build buzz before release, she's put her stamp on the game as well.

"I think *Mushroom 11* worked better than our previous game because the roles of what we were doing were well defined, we all trusted each other and there was less burn out because workloads were balanced better," Julia said. "Itay owned the game and got to call the final shots. He was also the programmer and game designer. I was in charge of marketing and tutorial design which did overlap with what Itay was doing, but we were open to each other's suggestions and understood our different priorities."

Early in development, Italy began to put all of the pieces together. He quickly realized this was going to be much more than a one-man job. Ironically, it led him to enlist the help of another married developer couple, Simon and Kara Kono. There aren't many games that have a husband and wife in the credits, let alone two. Regardless of the unique dynamic, however, the closeness of all four members of the team created one that would do anything to see the game succeed.

"Pretty soon into the dev process I realized that the game is going to be larger than I anticipated," Itay said. "I carried sketchbooks with me everywhere I went. I scribbled down ideas for puzzles that could use this [gameplay] mechanic. I ended up almost filling up two sketchbooks and I only chose a fraction to put in the game. It was a constant cycle of trying ideas and then fitting them to the mechanical context, the narrative and the art. Making the art is an interesting story in itself. I came across Simon Kono's art randomly and was able to sell the idea of the game to him. For a long time during the production, he was traveling the world with his wife Kara and was creating most of the art on the go, in various coffee shops and other locations all around the world. Toward the end of production, we brought in my wife Julia to help with the UX and the design and Simon's wife Kara to run the production. It was a tight team of two couples making a game."

Working with your husband or wife isn't for everyone. Especially when your financial security is riding in the balance as well. But the Kerens and Konos worked feverishly on *Mushroom 11* throughout development. With Itay and Simon handling the development and art direction, Julia handling the press, marketing and wherever else she was needed and Kara producing, the team was a solid one. "Having a team made up of couples also helped us fund the game's development," Julia said. "For most of the development, Kara and I worked either full-time or part-time so that Simon and Itay could focus on *Mushroom 11's* development."

Kara's involvement in the project was an influential one. She kept the game on track and focused on release. As is the case with many indie game releases, designers and developers can change the release date at will and focus on adding features. Like many of the

games in this book, a situation like that blurs objectivity. It also makes it difficult to cut features and polish. It's almost like having a child. You can't let go of what the game could be, rather than what it needs to be to get released. Kara's job was to let Itay and Simon know they were ready to go. That it was done. Although at times it felt like development took longer than expected, the team looks back in fondness of their effort towards creating something as close to perfect as they could. "There was a joke that the game has always been (and always will be) nine months from release," Itay said. "When Kara, the producer, joined the team, we've started looking seriously at the feature list and figured out a probable window for release—with quite a few cut features. I had much more planned and I may get to it at some point."

Mushroom 11 is one of the most unique platform games ever created.

One of the benefits of being in development for a few years was that the game got a lot of attention from the internet. Sites the likes of Ars Technica, Kotaku, Destructoid and Joystiq championed the gameplay and concept well before release. Selling over 100K copies since its release in October 2015, the game is considered an independent success and a mainstream cult PC game with a

following that consists of speed runners and diehards that appreciate the game's design choices and ability to provide something different. Its ability to garner critical acclaim from Steam and IGN proves that a little team of two married couples can disrupt and impact a multi-billion dollar industry. With a mobile version now available as well, *Mushroom 11* will continue to affect the industry. You could even make the argument that the mobile audience may appreciate it even more than those on PC and Steam.

"The game really feels great on a touch device, and we can't wait for a whole new audience to experience it," Itay said before the release. "We have plenty of other ideas for special challenges and areas, but are also involved in various other new projects so we'll see how we can juggle it all."

With the release of the mobile version and a few other projects begin, the team is focused on the future—one that is tied directly to the love they share for one another. "Sharing a project with your spouse and essentially controlling your own destiny is an amazing shared experience," Itay said. "The fact that the game was made by two couples makes this even more special."

Kan Gao, *To the Moon*

John's Tale

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Gamers have been attracted to the RPG genre since its inception because it has never been about sexy graphics and wild gameplay innovation. It's always been about story. Even as technology advanced, from pixel sprites to 3D models and eventually the wonderful visuals that encompass today's role-playing games, you can't have an amazing RPG without a story that far surpasses the visuals. Nevertheless, those advances in technology have changed gamers' expectations. The story still matters, just not as much as it used to. Although powered by visuals that would make a Super NES owner more comfortable than someone with a PlayStation 4 or Xbox One, Kan Gao's *To the Moon* has one of the best stories in an RPG, ever. It's also a game that is beloved by both the independent and commercial game industries.

While the humble and soft-spoken Gao sums up his game simply as "a story-driven game about two doctors traversing backward through a dying man's memories to fulfill his last wish," that summary barely scratches the surface. *To the Moon* is a tale so human that you'll often have to stop along the six or so hours it takes to finish it. Its rivers run that deep. The themes in it are ones that will always affect us. As a result, this independent game reminded so many gamers and critics why they play games in the first place—to feel. Because of that, *To the Moon* will always be a special tale.

To the Moon tells the tale of John, an elderly man, who doesn't have much time to live. Thanks to the work of two scientists, Dr. Wyatt and Dr. Rosaleane, John can realize his life's biggest dream, to get to the Moon. Well, at least in his mind. However, in order for his dream to be successfully realized, they have to essentially visit through his entire life. That means scanning through all of biggest

successes and failures and make his dream come true in a way that makes sense. In order for it to work, everything has to feel real to him. The end goal is to help him die in peace and with dignity.

While there have been touchy stories in games before, this is a tale that was never told prior in video games. And to be fair, it probably will never be told quite the same ever again. As an independent developer, working on his first commercial game, Gao didn't have access to monster technology, but he found a way to create something magical. Designed in the Super NES/Sega Genesis, 16-bit visual style, the palette employed during the golden age of console RPGs, it not only adds another element to the presentation, but ensures that *To the Moon* is put next to the early *Final Fantasy*, *Dragon Warrior* and *Chrono Trigger* masterpieces. That's where it belongs. However, it's quite a different title as well. With no real battles and a pure focus on story, there aren't any games it can be compared to.

"It's more RP," Gao said. "And less G. It was a culmination of styles from my previous three games, as well as being the first game of mine that incorporated sci-fi elements in its narrative."

To the Moon tells a story you wouldn't normally see in a video game.

Although much smaller in scale and featuring extremely limited gameplay, its story is one you'll remember forever. Simply put, if you're someone that has been affected by the deaths of characters in your favorite games and long to "feel" when you play, *To the Moon* can hit you at the core of your heart. To do that with retro-themed visuals is no easy task. Ultimately, it is a testament to Gao's ability as a creator. "I think there are both pros and cons to that," Gao said, in regards to the game's 16-bit-esque look. "Graphics and aesthetics are two different things. The graphics can definitely be better, but aesthetics aren't limited by the pixel art. However, if I was able to change the art to anything, it would be to look like a game like Bastion. I just like the water color-painted world, the fantasy feel of it."

Regardless of the game's retro-look, that could turn off some gamers, the gameplay and development of the story is the key to the "feel" of the game. The way it does that is one of the reasons why it's so unique. With only small puzzles, limited fighting (button-mashing segments to escape or battle monsters that don't necessarily require skill) and fetch quests, there's not much brain power needed to advance through most of it. But what these distractions do is get you ready for the next big chunk of the story. They spice up the gameplay just enough to make sure the game isn't all narrative.

Although obviously done in an effort to make the game feel deeper for players expecting more of a modern experience, *To the Moon* is a tribute to a time when a story alone could be enough to make a game great. The power of the medium and its ability to tell a story is something Gao understands better than most developers. Truth be told, he's just as much a film director and artist as he is a game developer.

"Although games are a cumulative media that encapsulates more dimensions, films have been around for a lot longer, and have had the chance to explore in a variety of directions and themes," Gao said. "With this project, I had a specific story to tell, without consideration for all the other factors that typically get established first and heavily shape a game's narratives. There weren't many references to this direction of storytelling in games, so I often tried

to recall what I learned from films instead.

"People often argue what the purpose of a video game is, but I think they can do so much and affect people in so many different ways. There are those story-based games that affect you just as much as movies and then there are games that just help you vent in a way. It's just awesome. It's such a diverse medium that achieves so much, in so many different ways."

The independent nature of the game also found a way to make an impact on the story. Almost the same way so many classic Atari 2600 and NES games were made with small teams carrying so many different torches, Gao found himself with plenty to do. In the end, it actually benefited the final product. Unlike many developers that lose their objectivity in the creation process, Gao understood what type of story he wanted to tell. "With a limited amount of people working on it, it took a long time to get everything going steadily," Gao said. "Because of that, I had an opportunity to work on the story as I went because there were so many other things to do. I wasn't just sitting on my bed, meditating. It's hard to say, but I think it took me about a half a year to put the story together."

Another guiding force in *To the Moon* is the game's soundtrack, scored primarily by Gao himself. Easily on par with some of the best SNES/Squaresoft RPGs of the mid-'90s, it's another reason why the game is an iconic experience. "During high school, I locked myself into piano practice rooms during lunch break and what not and just started banging away at that," Gao said. "I actually started composing because of my want to make games. When I first started making games, my friend James composed music for me, but one summer, he went on vacation and I was like, 'Oh no, what do I do?' So I tried to pick up the slack myself and that's how I pretty much got started."

With the combination of warm pixel art, wonderful story and beautiful score, by the end of *To the Moon*, you'll feel changed. Although you've never met John, he feels like an old friend. Someone you've seen live, in the flesh. Someone whose mistakes and pleasures you can connect with in a myriad of ways. The same can be said for Dr. Wyatt and Dr. Rosaleane, who start off the game as more like plot devices than characters important to the

development of the story. But, don't be fooled. This is their tale too. What they see and uncover in John's life raises questions within themselves as well. Similar to what Spider-Man's Uncle Ben Reilly once said, "With great power, comes great responsibility," Wyatt and Rosaleane learn to understand, throughout the course of the game of what their invention actually is capable. Although their technology has made it possible for John to change his life before it's over, should they get involved? These questions, as to why John's life became what it is, are the fuel for a deeply compelling narrative.

But tackling death in 16-bits is no easy task. Hell, it's not even easy on the PlayStation 4 or Xbox One with more graphical power and better audio capabilities. But Gao's writing comes from a unique place and one that gave him the tact, warmth and compassion to tackle it with the type of passion necessary for it to be special. "My grandfather had a heart condition and at that time had to undergo major surgeries," Gao said. "But fortunately, that worked out okay. That just kind of made me think of this whole death bed thing and how we're all going to be there at one time. It got me thinking if I was going to regret anything when my time would come."

After all of the hard work, Gao's game was met with a plethora of praise. What started as his first commercial project and a way for him to express himself and in his own way, discuss a very specific moment in his life, turned out to be an indie darling. Gamers "got" it. They loved it. "It's not what I expected," Gao said. "I expected the reception to be a bit more polarized because the game was unconventional in the way that I wasn't sure how people were going to take it. It's quite a contrast to what's been going on in the game industry as of late. But I'm happy how things have turned out at the least."

The visuals used in *To the Moon* will take gamers back to the Super NES era.

The post-release of *To the Moon* for Gao was a wild time for the developer and one that forced the once shy teen to come out of his shell a bit. "I am very honored and grateful for all of the support that has been given," Gao said. "The review publications and the players have been so supportive and constructive and I'm really appreciative of that. It's my first commercial project and I'm just so honored that I get to do this for a living and dedicate my time to it.

"There were so much to take care of and deal with during that period of time, I honestly didn't have time to stop and get a grasp of how I was really feeling while it was happening. Bewildered and exhausted, perhaps? I was constantly on adrenaline rush; for example, I remember one morning when I woke up to over 50 emails about their game orders not being delivered due to a system malfunction, and I had to resolve each case one by one.

"So aye, that's where my mind was honestly at first the most part around then, haha. But after all the dust had settled, there were

many mornings when I woke up and had a moment of thinking that it was all just a dream. It was crazy, it was wonderful. But given how much of an introverted kid I was, I was just happy to finally make a connection with people in that sense."

More than a half decade after the game's release, *To the Moon* is still considered a landmark independent game. Even in terms of commercial games, it is one that blurs the line between video games and art. Although not a monster hit the likes of *Super Meat Boy* or *Braid*, its impact on independent games and RPGs is unquestionable. "Despite the specificities of the plot and its characters, taking a step back, it's about something very basic—the communication and (re)connection we all long for in one way or another. I honestly think a lot of it is due to the broad theme of a 'lifetime' that the game touches on, too, in a way that simply helps people to reflect on the stories of their own life."

The affable and warm Gao is grateful of the impact the game has had. But that doesn't mean he doesn't have a preferred way he'd like the game to be remembered. Like the impact the game has had on him as a person, Gao hopes the game impacts others in a very human way. "Not as a 'tear-jerker,'" Gao said. "But as something that was, hopefully, meaningful."

Emeric Thoa and Audrey Leprince, *Squids*

The Game That Beat Those Angry Birds, for a Little While

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Six years is a long time in video game history, but in iPhone game history, it's like going back to a time when jukeboxes, milkshakes and Elvis Presley ruled American pop culture. In 2011, there was no *Pokémon Go*, *Candy Crush* or even the infamous disaster known as *Flappy Bird*. In 2011, *Angry Birds* was the unmistakable king of iPhone games and still to this day, is often considered by many as the best iOS game of all-time. Thanks to simple controls and lots of pick up and play appeal, the game still has a following and even spawned a major motion picture and a slew of sequels. But *Squids*, the iOS RPG from the French development team, The Game Bakers, is without a doubt the closest you'll ever get to a console experience on an iPhone and does more with an iPhone than the original *Angry Birds* ever did. It is arguably the most complete original game ever released on the iPhone.

At the time, *Squids* touched upon purely uncharted territory. Even *Angry Birds*, the *Super Mario Brothers* of mobile games, was looked at as more of a distraction or time killer than a real game. *Squids*, on the other hand, was a game that you got the most fun out of at home, relaxed and ready to game. You needed at least 20 minutes to play. There are no quick levels. The story was immersive and with plenty to see and do, the game wasn't akin to any of the gameplay mechanics of the usual iPhone game. While it used the touch screen of any iOS device in a way that any fan of the typical mobile game would be comfortable with, cut-scenes with actual story and level-up ability of the characters made it foreign to the iOS gaming landscape. *Squids* never felt like an iOS game. It was a completely different experience for any hardcore mobile gamer. That has something to do with the fact that the company's co-founders, Audrey Leprince and Emeric Thoa, spent over a decade working on game franchises for Ubisoft the likes of *Tom Clancy's*

Ghost Recon, *End War* and *Rayman*. Before *Squids*, games on the iPhone were distractions, games played on the bus or in a doctor's office. They weren't designed for the same audience. Although *Squids* is definitely more of a cult series, regardless of its two million downloads and 30,000 combined units sold on the 3DS and Wii U, it marked a huge turning point in iPhone game history—a time when there was a serious attempt to make iPhone gaming more than just casual.

"When the iPhone came out, we played those games and loved them," Leprince said. "They were super addictive, super simple and super accessible. But after a while, we got frustrated with some of them. We had no reason to come back. No reason to keep playing. That made us say wait a minute. That's exactly what we know how to do. We've been doing it for ten years, building AAA games with a lot of depth and gameplay layers so that's what we decided to do with *Squids*. We wanted that type of experience on the iOS. The tactical elements, the roleplaying elements, the story. We wanted the story to really feel like it exists—that's something that's rare on the platform."

While the opportunity to tell a legitimate story, using AAA gaming methods, on the iOS, was one reason Leprince and Thoa developed *Squids*, it was also an opportunity to get away from all of the glitz and glamor of AAA development. Similar to many of the games on the Sega Genesis, Super Nintendo and Atari 2600 mentioned in this book, games developed for mobile have much smaller teams and are developed in less time. After a decade with Ubisoft, Leprince and Thoa saw themselves moving in a different direction. The end result is a game that could have never been made on a retro system, but one that feels entrenched in everything that's great about old-school games.

"One of the main reasons we started The Game Bakers was because we wanted to make games in a different context than AAA companies: smaller teams, shorter production time, different games," Thoa said. "Both Audrey [Leprince] and I have worked on war games for years, with huge teams and budgets. We wanted to craft smaller games, for a different audience."

Taking anywhere from five to six hours to complete with a host of

unlockables, *Squids* would be a somewhat thin console game by today's standards. Even better, consider it more akin to a handheld classic the likes of *Cave Story*, a game short, but one providing a memorable experience nonetheless. In spite of lacking depth in comparison to a console game, *Squids* is one of the deepest iOS games, ever. The type of gameplay in *Squids* is something that most mobile games can't get close to. The story, which is a cross between *Final Fantasy* and *Star Wars*, features a team of squids fighting an evil force to save their kingdom. While it sounds cliché at first, there's definite polish there. For example, the development as Steev, your first squid, as the group's leader, in the wake of the elder squid Winnick's "disappearance," is well told. You'll see a bit of Disney in the delivery—this is definitely a coming of age story. *Squids* also has no problem referring to moments in pop culture history. If you're a fan of Clint Eastwood and Lee Marvin Westerns, you'll definitely get the aside.

Emeric Thoa left Ubisoft to do something different on the iOS, and that's exactly what he did.

"The art director [Jérome Renéaume] had a lot of influences from Japanese animation and American classics and it really helped us build the universe," Leprince said. "That's why it came across as so unique."

By the end of it all, the Game Bakers did their homework on this one, creating a story with the feel of a Pixar film and the '80s cartoon *Snorks*. Again, while the plot isn't as developed as say a *Final Fantasy* game, it connects you in a way that no casual iOS game ever did prior. After a few levels, you get attached to the characters and quickly develop favorites. Mobile games didn't do that then and they, for the most part, still don't do them now.

"Initially, *Squids* was inspired by old games I played and loved when I was a kid. *Shining Force* and *Cannon Fodder* to be exact," Thoa said. "During the conception, a lot of other games, books, movies, comics inspired us to create *Squids*, but I like to think that it's also a game that comes from us. It doesn't define itself by its inspirations."

With their love of console games as a base, *Squids* looks and feels different than your standard mobile game, but that doesn't mean it's out of place in the App Store either. In a move that proves the ability of Thoa and Leprince, the touch-screen controls will immediately connect with fans of *Angry Birds*. Using the touch-screen to fling your characters around the screen to advance and to attack, *Squids*, in spite of its eventual release on the Nintendo Wii U and 3DS, is a mobile game at heart. It's just a completely different one. In terms of adding layers and providing more than a simple gameplay interface, every character in *Squids* has a signature style. Each character looks different and plays differently. You'll root for them, you'll smile, you'll have a favorite; you'll want to see what happens next. Even the hand-drawn loading screens make you feel comfortable and connected to the characters.

Their first game as an independent development team, The Game Bakers needed a home run in order to stay afloat. They knew it too. That's one of the reasons why the comparison to a console game is a fair one. Going on to make a sequel to *Squids*, *Squids Wild West*, both of which were ported to the Nintendo 3DS in 2014 in the form of *Squids Odyssey*, as well as *Combo Crew*, a game that is a more a traditional mobile game in spite of the frenetic battles in it, it's easy to see now that the Game Bakers first foray into mobile gaming was a resounding success. Their latest game, *Furi* is a dual-stick shooter/ sword fighting game on PlayStation 4, Xbox One and Steam that

features character designs from the creator of *Afro Samurai*. None of that would have been possible without *Squids*.

"There was a kind of 'startup' pressure. It needed to work for the company to exist, for us to be able to keep making these games as The Game Bakers," Thoa said. "But at the same time, I remember this production as one of the most relaxing in my life. Everything felt right, and we didn't know at the time how hard it was to 'survive' in this very competitive game industry. We were always confident the game would release. That's probably one of the biggest strengths of our team. When we commit to something, we always deliver. We are pretty good at planning and evaluating what we can or can't do."

A lot of the small successes of *Squids* has to do with the gameplay engine. Using the physics of the water, characters sling themselves with their tentacles to get from place to place in a way that will make you feel as if they were in fact underwater. Affecting gameplay in a much different way than *Angry Birds*, which used the slingshot gameplay method as well, *Squids* made it hard to land the perfect shot. Adding ledges and whirlpools within each level made the game even more difficult. While traveling around levels requires practice and precision, combat is addicting as well and sometimes rather difficult. Like a classic platformer on the Nintendo Entertainment System, some levels will take a dozen attempts to simply understand what you need to do to get through. Combining strategy with fun doesn't come naturally however and some levels make sure you use your brain. Simply put, the levels are expertly designed, again, like a console game. It's almost as if the Game Bakers understood their title was cute and had to give real gamers a reason to fall in love. As a result, once released, *Squids* chalked up plenty of five-star reviews in the U.S. and in Europe, where it's much less cult than in the states.

"The reception was fantastic. Players really loved the game. We received tons of fan emails; they were very touching," Thoa said. "In France, the game beat *Angry Birds* to being first in the App Store for two weeks in a row. This was when *Angry Birds* was king. Most critics were very fond of the game, but few of them criticized the use of in-app purchases, although they were not at all required to

play the game [there were basically cheats to make the game simpler if needed]. But at the time, in-app purchases were evil. Overall however, *Squids* was a massively critical success."

In the end, though, in spite of the gameplay depth, passion and their ability to do something never done before on the iOS, their mission was still, at least to them, a semi-failure. Still a platform where simplicity is king, mobile games the likes of *Squids* are out of place. Games like *Candy Crush* and *Bubble Witch Saga* have millions of players, but not the same players as those who cherish a good story, cool characters and gameplay elements more akin to a console experience. So in spite of having at one time, over a million active players, there are no plans to continue the series. "Despite the pleasant success, we believe the current market is too fierce for a game like *Squids* to break even," Thoa said. "The game has too many in between: it's childish on the outside, but deep and tactical, it's a RPG, but a pool game. It's on mobile, but it has 20-minute gameplay sessions. It's an epic story, but it's… octopuses. As an independent developer, it's our duty—and only way to survive—to make edgier games, unique games that stand out."

Don't be fooled by *Squids'* cartoony look, it's a deep RPG experience on the iOS.

Ultimately, however, The Game Bakers proved that mobile games can be more than tech fodder and guilty pleasures. They can be fully satisfying. Without a gimmick, *Squids* proved that you could have a console experience on a tablet. As a result, it's left as a side-note in gaming history, unnoticed by many, despite the fact it's arguably still the best "real" game on the iPhone.

"*Squids* was built with a vision in mind. In the early ages of the iPhone and mobile games, we firmly believed that eventually, 'Nintendo' type of games would come to the platform," Thoa said. "Deeper games, with high-quality games assets, various game mechanics, longer game sessions. Maybe mobile games would not be 'only that,' but there would be a 'gamer' segment on mobile and *Squids* was designed to be in that niche. With *Squids,* we learned that this… didn't happen. We were completely wrong and the audience that we imagined never actually came on mobile or was never big enough. Mobile changed into a different kind of platform, but 'gamers games' never really took off."

Matt Thorson and Alec Holowka, *Towerfall*

From Arrows on the Ouya to Ascending on the PlayStation 4 and Beyond

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Unlike some of the developers and creators in this book that worked on the Atari 2600 and other "retro" consoles that created games solely based on their imaginations, *TowerFall* creator Matt Thorson got to grow up during a wonderful time. As a kid in the mid-to-late '90s, Thorson had the opportunity to have a front row seat to the "genesis" of the 16-bit era and the simultaneous beginnings and blossoming of both the Sony PlayStation and Nintendo 64 as a backdrop for his imagination. While many young gamers at this time preferred to play games alone, as a way to relax, Thorson was bitten by the multiplayer game bug. This, in its essence, is where his game *TowerFall* (and later, *TowerFall Ascension*), which has the right to say it's the Ouya's best game and one of the best multiplayer games on the PlayStation 4, was born.

While several consoles had games that could be played with up to four players in the '90s, including the Sony PlayStation, with its multi-tap peripheral, the release of the Nintendo 64 in 1996 made four-player gameplay possible right out of the box for the first time in over a decade. The console had four slots for controllers and a ton of support from third-party publishers. It changed everything. From fighting games and first-person shooters to wrestling games, the Nintendo 64 was the system to have if you had friends who wanted to get their game on. All of a sudden, things that many gamers held in high regard at that time, such as story, didn't mean nearly as much. If the game was fun to play and got the competitive juices flowing, it could be a hit on the N64. No longer did you have to wait your turn. Everyone could play now. And to make things even clearer, this was when online multiplayer wasn't a possibility yet. If you wanted to play with your friends, you had them over, you bought some pizza and beer and it was on. That was the only

way to do it.

Two years later in 1998, the Sega Dreamcast followed suit with four-player gameplay out of the box as well and added games the likes of *Power Stone*, *Bomberman Online* and *Worms World Party*. There isn't a gamer reading that remembers the actual plot lines of any of these games, but they can probably recollect the blisters they got from playing them. At that point, the industry knew it wasn't a trend anymore. People loved the newly-christened "party game" and multiplayer genres. Fast-forward to today, where wireless controllers are the standard and *Mario Party* has nearly more sequels than its main series and there was never been a shortage of games that people could play with their friends. This was the audience Thorson wanted to attract, mainly because he knew how much those games could impact people.

"I got so much out of local multiplayer as a kid. There was a time where every N64 game came with a probably-slapped-together four-player mode, and I loved a lot of them," Thorson said. "I remember realizing that even terrible games became fun when you introduce local multiplayer, which was the first hint that the fun was primarily driven by the players rather than the game for me. The truly great local multiplayer games of my youth were the classics, though: *Goldeneye*, *Mario Kart*, *Bushido Blade*, *Turtles in Time*, *Bomberman* and of course *Super Smash Bros Melee*."

TowerFall is one of the biggest indie successes on the PlayStation 4.

Before *TowerFall*, Thorson made the Adult Swim game *Planet Punch* and several other flash games including *Celeste Classic*, *Chaos Heart*, *Fat Wizard* and *MoneySeize*. Much like *TowerFall*, all of these games feature retro-styled graphics and easy jump in, jump out gameplay, but the type of difficulty that makes them tough to master. It's through these games that he realized he could make a living, designing games, but it wasn't until the release of *TowerFall* that his games would resonate with a commercial audience. Even so, *TowerFall* is still uniquely retro in look and equally as cult in its simple, but frenetic gameplay. Even its name is inspired by the past. "The name *TowerFall* was inspired by the name '*Castlevania*,'" Thorson said. "I wanted to find a made-up word that was simple and iconic in the same way."

The original concept for *Towerfall* came at the June 2012 Vancouver Full Indie Game Jam. For those unfamiliar, a Game Jam is an event where developers have a specific amount of time to crank out an original game, in this case, 48 hours. With his team and fellow designer Alec Holowka, who would end up as the game's composer, by his side, Thorson created a single-player arena combat game that centered around a hero shooting arrows. All about speed and making decisions on the fly, the game had eight-way aiming and like many of his previous flash games was simple enough that anyone could play. But it wasn't until Thorson went back to his youth that the game truly began to take shape.

Moving in with Holowka into "Indie House," a home in Vancouver where all the members of the home were game developers, also helped TowerFall's development. The entire house played it at one time or another and was always willing to share their thoughts on it. Eventually, with all the critique and by incorporating elements from the games he loved to play as a kid, *Towerfall* became something different and anything but the single-player platformer it was originally intended to be.

"When it was working well, it [Indie House] was an accepting place that was progressive and inspiring," Holowka said. "It had a sense of idealism that was hard to live up to. A lot of cool projects came out of that time."

With one-hit kills, the ability to catch arrows and the ease of play,

Towerfall is a love-letter to *Bushido Blade*, *Super Smash Bros* and even the Nintendo 64 version of *Goldeneye*. As a result, *TowerFall* was indeed an homage to the multiplayer games he played as a kid.

"It began as a single-player game about an archer climbing a tower," Thorson said. "Eventually I prototyped a multiplayer mode, and it was so fun that it quickly became the focus of the project. Game jams are a great way to zero in on an idea very quickly and see if it has legs. It's also super inspiring to be in a room full of passionate creators working so hard. Going from single-player to primarily multiplayer was the biggest leap. From there, the design evolved slowly and naturally, with lots of hard work, testing and iteration, to the final game we released."

As a multiplayer game, *Towerfall* needed to be played by a lot of people for Thorson and his team to get as much feedback as possible. No longer being pitched to Adult Swim Games as a flash project, this was going to become Thorson's first commercial game. He needed to get people to notice it. In order for that to happen, he knew he'd have to put more time and effort into it than he had any previous game he developed. The fact that it was a multiplayer game meant he had to be willing to take the game on the road. "A huge amount of *TowerFall's* development time was spent testing, and testing *TowerFall* basically meant throwing parties and taking it to conventions," Thorson said. "We brought it to PAX and spent all day playing with fans, then went back to the hotel room and played more with our friends. It was such a fun and happy development process for me, and I'm very thankful I got to experience it."

Less than a year into development, *TowerFall* had a demo and was on its way to the 2013 Game Developers Conference in San Francisco, but was pitched to the press by Holowka because Thorson had an expired passport. It was there that the game caught the attention of the creators of the Ouya, a console built on Android software that raised $8,596,474 on Kickstarter the year before. Desperately looking for a game to launch the console and its "couch co-op" style of gaming, Ouya pitched Thorson to make the game an exclusive one for the micro-console. A few months later, *TowerFall* was the #1 game on the fledgling console. While the system is essentially dead today, the impact *TowerFall* made on it allowed

Thorson to continue the project and eventually bring it to a much larger audience.

"On Ouya, we knew we were releasing to a small, dedicated audience, and that was comforting. PlayStation 4 and Steam felt like the big leagues," Thorson said. "We wanted more time to refine *TowerFall* before being in that spotlight. I think we made the right decision. Self-funded indie development can be pretty scary. Launching on Ouya first was a huge risk—it ended up paying off in all the attention we got, but it was a gamble. When you're so focused on one project every day for years, it's easy to feel like the world will end if it isn't a success. Of course, if *TowerFall* hadn't found an audience I would still be fine, but I put way too much pressure on myself."

With an exclusivity deal in place with Ouya, *TowerFalls* work was far from complete, though. Thorson, now one of the most sought after indie developers in the world, wasn't about to rest on his laurels. His plans post–Ouya were to make the game every bit the party game it could be. For it to be able to hold its weight with the *Super Smash Bros* and *Goldeneye* games of this console generation, he'd have to focus even more on the project. "Matt is very hardworking and dedicated to his projects," Holowka said. "During the development of *TowerFall*, he'd put a lot of things aside to get work on the game done."

TowerFall is inspired by some of the greatest multiplayer games of all-time and has a definitive retro look.

But just a year before, Thorson didn't think he was ready for the PlayStation 3. What the Ouya release did was prove to Thorson and the rest of the world was that the game had massive legs to stand on. There was no mistaking now that people saw its passion and fun. That it could be a success wherever it was released. By 2014, Thorson's game was on the PlayStation 4 and those sentiments quickly became a reality. By 2015, it was on the PlayStation Vita and could now be taken anywhere in the world. In 2016, an eight-player edition hit Windows. A Xbox One version is currently in development as of this writing. In five years, Thorson's creation has come full circle and is available to millions.

"I really see the original Ouya release of *TowerFall* as a kind of public beta when compared to the final PlayStation 4 and Steam game, *TowerFall: Ascension*," Thorson said. "We added a co-op mode, more levels and power-ups. But the most important additions for me were the unlockable stages and characters. Finding and

unlocking secrets with your friends really makes the world richer and more complete."

One of independent games' biggest success stories, Thorson's *TowerFall* is easily the game that launched the Ouya and put it in a situation to be a viable console. Close to three years since its release on the PlayStation 4 and it's still a fan favorite on the console. "TowerFall is one of the best couch multiplayer games, period," Holowka said. "It's very well balanced for new players and veterans alike."

And like the very game he created, Thorson believes he's come a long way. But that doesn't mean he's forgotten his roots. His newest game, *Celeste*, designed with Noel Berry and released early in 2018, is similar to the original concept of *TowerFall*. A single-player platformer that sees the main character climbing up a mountain and fighting enemies, it's ultimately a metaphor for both Thorson and *TowerFall*'s climb from independent game sensation to mainstream success.

"I became a much more social person by making *TowerFall*," Thorson said. "It taught me so much about group psychology. I'm a pretty quiet, introverted person, but making *TowerFall* showed me a side of myself that loves being the life of the party. *TowerFall* is all about bringing people closer together. We tried very hard to make playing it with your friends feel intimate and direct—like you're having a conversation. I think this is a powerful thing that local multiplayer games are capable of, but maybe a lot of people forgot how amazing it is when it works. I want *TowerFall* to be the backdrop for your best parties and most meaningful friendships."

Eric Holmes, *Hulk Ultimate Destruction*

The Big Green Monster That Could, and Did

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The Incredible Hulk is one of Marvel Comics' most iconic characters. He's not only the strongest in their fictional universe, but he's also a founding father of Earth's Mightiest Heroes, The Avengers. If that's not enough, he's green and speaks in the third person. What else could you want in a hero? Purple shorts? Wait, he has that, too. Add in a successful animated series, TV show and a pair of films based on him that have grossed over $500 million dollars and Bruce Banner's alter-ego has been a consistent backbone in pop culture history for over 50 years. But it wasn't until 2005's *The Incredible Hulk: Ultimate Destruction* that the iconic character got the justice he deserved in the video game world.

It's not like the industry was blind to the potential of a great Hulk game, though. The technology just wasn't as strong as the character himself. While the mid–90s 16-bit *The Incredible Hulk* wasn't terrible, it was more of a platformer/beat-'em-up and didn't capture the essence of what made the character, which is obviously his ability to take endless punishment and keep firing back. The same thing goes for the PlayStation and Sega Saturn Hulk game that came a few years later, *The Incredible Hulk: The Pantheon Saga.* Far too easy in terms of difficulty and often a chore to get through thanks to poor control, the Hulk games that came before *Ultimate Destruction*, for the most part, were far from special.

With the 2003 Ang Lee film set to make a huge impression at the box office, Radical Entertainment had an opportunity to make a movie-tie-in game that changed the fate of the character for good. While the 2003 Hulk game, like the film, focused just as much on Bruce Banner as it did the Hulk and didn't have an opportunity to truly show what the character could do with the graphical power of the PlayStation 2, GameCube and Xbox, it was a solid movie game

that made *Ultimate Destruction* possible. Without it, Hulk may never have been given another chance on the video game platform.

"The 2003 Hulk game was a very quick turnaround on a movie license," the game's lead designer, Eric Holmes said. "That project was the necessary on-ramp to *Ultimate Destruction* as we developed our tools and processes from almost nothing before that game. The movie game was a bit of a blur, but it taught all of us what we were good at and what we weren't so good at. For example, we were pretty good at making characters do some cool interactions with objects and physics. We weren't so good at linear levels, dictated cameras and making navigation fun. So for *The Incredible Hulk: Ultimate Destruction*, these either became things we knew we'd have to improve or avoid.

"That game [2003's Hulk] was a huge struggle as we were building a lot of the core technology as we went. *The Incredible Hulk: Ultimate Destruction* leveraged a lot of what we'd figured out in terms of tools and in terms of the team—who we were and what we were good at. So that let us move quickly. The team was small—just over 30 people—and it was a team that made it a pleasure to work on the game. I remember us laughing a lot throughout the production. People liked what they were doing. When that energy is in place it makes all the difference."

It was also the first opportunity Holmes had to be a lead designer on a project. A decade after *Ultimate Destruction*, Holmes has served in a variety of roles (Design Director, Lead Designer and Creative Director) in some of the biggest games of the last two console generations, games the likes of *Gears of War 3*, *Battlefield 1* and *Batman: Arkham Origins*. While Holmes is regarded now as one of the most talented designers in the industry today, the 2003 Hulk game and later *The Incredible Hulk: Ultimate Destruction* put the spotlight on him long enough so he could keep it there and cement his place in the industry.

A lifelong fan of games, Holmes' knew what career he wanted after he read a Commodore user guide on how to make games. His gaming hobby continued to evolve into something more when his parents bought him Amiga and then a PC for his studies at university. After experimenting with various modding tools and his

graduation from college in 1997, he was ready to get to work. In 1999, he was a developer on *Earthworm Jim 3D* and by 2001, he was the lead designer at Radical Entertainment. Although the 2003 Hulk was by Holmes' own admission a time-sensitive project, the team put out what was at that point, the best Hulk game to date and one that showed the team was willing to do whatever it took to make it more than just a passable romp with a movie license. It was also a game that was fun to design and allowed them a ton of creative freedom with a wonderful character and world. It also gave them an opportunity to do what every creator likes to do, lay Easter eggs.
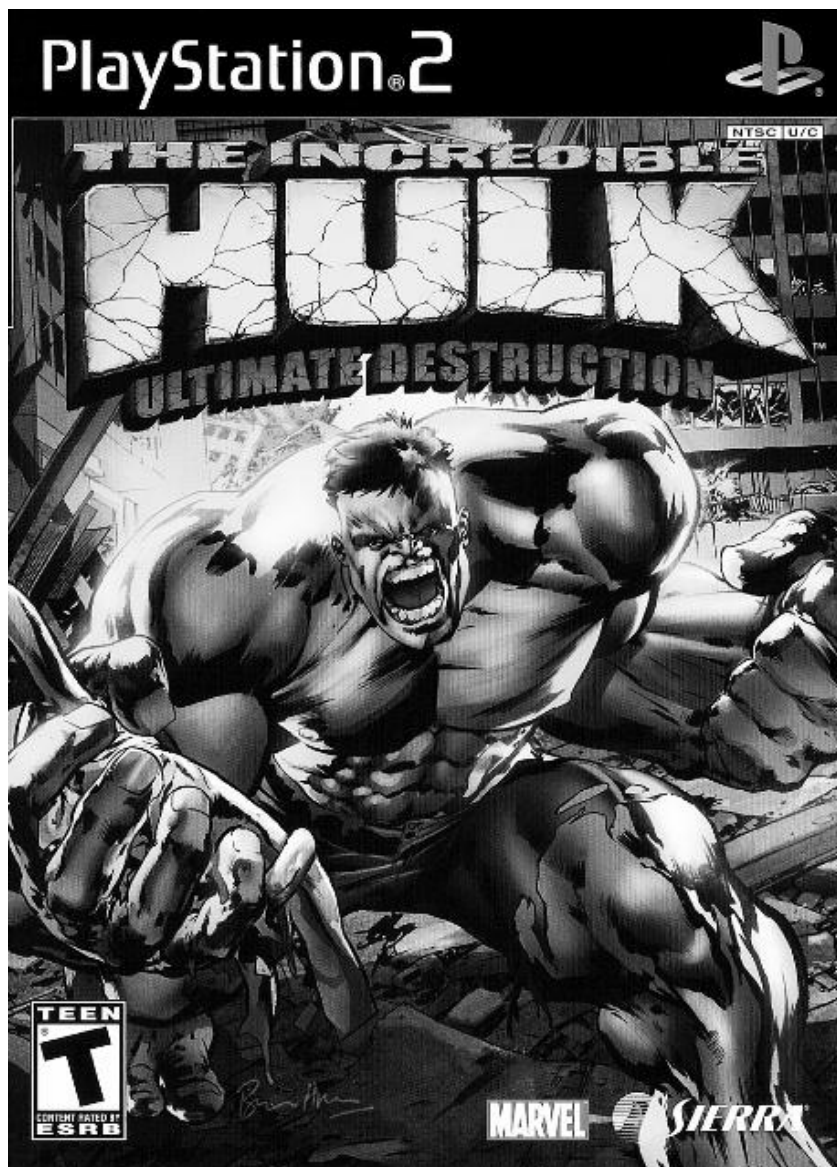
After a stream of lukewarm titles on a bevy of consoles, *The Incredible Hulk: Ultimate Destruction* delivered the first fantastic game based on the character.

"Savage Banner is something that nobody found in our original 2003 Hulk game," Holmes said. "There's a place near the Leader's base—a doorway, I think. You jump up and down there a certain number of times [10? Something like that] and you unlock Savage Banner. Totally unsupported. Not QA tested. I know we tried to add him to the game, but he came in super late so the order was to yank him out. Someone squeezed it in there and hid it. I myself only found out about this at least a year after we shipped."

While the first Hulk film made close to $250 million at the box office, was a financial success and the game sold over one million units across the GameCube, Xbox and PlayStation 2, the film was far from critically-acclaimed. Like the film, the 2003 game wasn't great enough to make people want another one. Fighting the entire time for another shot with the license, Holmes and his team eventually got their wish. But with a limited budget and another quick turnaround time (the game was announced in December 2004 and released in August 2005) Holmes knew it wasn't going to be easy.

"There was a long time when we weren't sure if we could deliver an open world where we could load the environment," Holmes said. "A lot of people said it was impossible. Rustle Hill, our Technical Art Director, pretty much single-handedly proved all the naysayers wrong and just made it happen without a lot of help. Doing the impossible is Rustle's trademark."

With the support of his team and an ability to understand what previous designers couldn't about the Hulk, the game began to take shape. For the first time, Holmes and his team felt they were headed down the right path. Not even the short development cycle and a limited budget could stop them this time. "The biggest breakthrough was when we tied the Hulk's movement together with the physics system of our world," Holmes said. "We knew we wanted to create a character all about one thing: power. Everything we did was about overdoing his strength. His power grants him speed, but his power means he can't turn without sliding and ripping the tarmac under his feet. The breakthrough moment was making him smash stuff out of his way when he runs. Running into a truck just bashed it out of the way. With a dynamic traffic system,

it just made running around town feel amazing as you smashed everything out of your path. Add to this the huge jumps the character could do, and wall-running and we had movement that felt unstoppable.

"Almost all these amazing character control moments happened at Bryan Brandt's desk. Bryan is the sort of guy that just does wonderful amazing stuff while nobody is looking. The character team had wanted to put the Hulk 'surfing the shield' move in there just because a node of the control system mapped out to suggest the player should be able to dash with the shield and something should happen. But the schedule said no. There was no time to animate it. And the memory said no. There was no memory budget to load surfing animations even if they were made. So we all thought we'd never get it in. I remember Bryan hacking it in any way, using some existing jump animations in some scripted manner that only Bryan could do. This happened countless times with Bryan and countless times across the team. Magic happened."

That doesn't mean Holmes and his team thought the game was perfect. They just knew they had to make a different type of game—and not the one they could have made if they had more time and money. With such a short time in development (less than a year) by today's standards, Radical had to cut corners. Luckily, it just happened to put more focus on what made the character so special in the first place. Although the game features a lengthy and original story by Marvel Comics veteran and Hulk scribe Paul Jenkins, Holmes and his team had to make sure, at all times, that people knew this was a different Hulk game. One that wasn't based on a film or a comic book arc. This was Hulk the way he should have been all along. He was a destructive monster.

"The core abilities of the character were the real star. And we figured them out as we went along," Holmes said. "Probably the biggest thing lacking was cut-scene bandwidth. I still grimace when I think back and realize that so much of the story is told in text. I wish we'd had more cut-scenes in there. Paul Jenkins did great work with the story–I just wish it had a bit more production values."

Prior Marvel games that were financially successful were enjoyable

to play because of their ability to capture the essence of what made the characters great. *Spider-Man 2* was iconic because Spider-Man could now realistically web sling through a massive open-world, while *X-Men Legends* deepened the dungeon-crawling/RPG engine of games like *Baldur's Gate: Dark Alliance* and made it even better. What *The Incredible Hulk: Ultimate Destruction* did was create a game that anyone could jump in and play and do what Hulk did best. Destroy. At the same time, with Jenkins' story, hardcore Hulk fans got plenty of reasons to feel connected, even with a lack of bells and whistles. Simply out, this game, unlike some other games that faced tight deadlines, didn't need it. The physics engine is that good.

"You're the Hulk. The controls are simple. You're very powerful right out of the gate—it's mostly there as soon as you grab the controller," Holmes said. "Then it gets better and better as you earn more abilities. Throwing cows at helicopters doesn't get old. But I think my favorite is the Joe Fixit/Grey Hulk mode where you'll get a barrage of one-liners from the original animated series Grey Hulk actor, Michael Donovan."

After release, Holmes and Radical knew they hit the mark, balancing the strength of the character's abilities and just enough story to keep players locked in the single-player campaign. It was something not many critics saw coming. And why would they? There never had been a great Hulk game, ever. "People seemed genuinely surprised that there was a good Hulk game. It was something that was pretty immediate when you got a controller in your hand, but before those people were pretty cynical. This was before the amazing draw that the Marvel properties have today. X-Men had been out for a couple of hit movies, Spider-Man was a huge blockbuster—but superheroes were really up and coming at the time."

Now a seasoned veteran thanks to his work on *Gears of War* and *Batman,* Eric Holmes cut his teeth on the *Hulk* games on the PlayStation 2.

While there was never a sequel to the game, the effect it had on the industry was huge. Helping Holmes' career is one thing, but *The Incredible Hulk: Ultimate Destruction* proved you didn't need a reason to release a comic book-inspired game. With the next Hulk movie set for release three years after the original, there was essentially no reason for this game to come out. At that time, games based on comic books usually had movie-tie ins or even in rare cases (*Spider-Man & Venom: Maximum Carnage*) were based on story arcs. *The Incredible Hulk: Ultimate Destruction* was neither.

Even with a small team, limited budget and a lack of a mega marketing machine behind it, *The Incredible Hulk: Ultimate Destruction* was still a success. Fueled by fun gameplay, awesome visuals and the best sense of the character, *The Incredible Hulk: Ultimate Destruction* is still a blast to play today. "I think I can speak for the entire Ultimate Destruction team here—we were an underdog title. That defined us," Holmes said. "The Spider-Man movie came out and each was a huge hit. Activision had a string of very successful Spider-Man games that people were very hungry for. By contrast, the Hulk movie came out and just didn't ignite in that same way. So we started off having to convince everyone that there should even be another Hulk game. Then we had to convince people that we should do something ambitious. But we didn't have a huge budget. We didn't have a lot of people or a lot of time. But what we had was a team of very passionate and creative people who were determined to make something great. It was fun to be in that environment.

"It was a project where this small crew of extremely talented individuals made things happen without a huge amount of drama and suddenly the game just got better overnight. It was a series of magic tricks performed by a determined and enthusiastic team. So I think back to that project and I think of the team—a great crew that had fun coming to the studio and wowing each other. That plucky underdog atmosphere and a 'we can do it' attitude is what made the game what it is."

Jamie Fristrom, *Spider-Man 2*

Great Power = Great Fun

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Spider-Man has always been Marvel's most iconic character. While there are those who love and appreciate characters the likes of Wolverine, Captain America and even Thor, for a variety of reasons, Spidey has always been the straw that stirs the Marvel drink. And for good reason. Smart, savvy and strong, trusty Spidey is the only superhero to survive death, cloning, body-switching, growing extra arms and the death of his true love at the hands of his arch-nemesis. Through a slew of wild story arcs, costume changes and even complete reboots, Spider-Man has always found a way to adapt and connect to an audience.

Regardless, Forest Hills' resident webhead just could never get that killer video game under his belt. One that truly encapsulated everything that made him amazing, astonishing and of course, spectacular. Whether it be a lack of creativity, sub-par developers using the attractive license to merely cash-in, or even technology not being able to do the character justice, it wouldn't be until 2003's *Spider-Man 2*, a game ironically loosely based on one of the most iconic comic book-based films ever, that the nephew of May and Ben Reilly would cement himself forever in video game lore. Make no mistake, even if you're not a fan of Spider-Man, Treyarch and Activision's *Spider-Man 2* is an iconic game that blurs the lines of adventure/beat-'em-up and open-world video games completely.

Fueled by the best web-slinging mechanic of any Spidey game ever, gamers never felt more connected to the character. In prior games, Spider-Man could web sling anywhere, at times creating situations that defied even comic book logic. But while most gamers didn't care that Spidey was connecting his webs to the clouds or objects they couldn't see, critics and dedicated fans yearned for something far more polished and realistic. It wasn't until the release of *Grand*

Theft Auto 3 a few years before that the seeds for a wonderful Spider-Man game were finally in place. However, while the open-world nature of the game was a necessity, the web slinging engine was the key to everything. Without it, *Spider-Man 2* would be just another good comic book-inspired game.

For *Spider-Man 2*, Treyarch grounded Spidey in reality first before making him the magical character so many of us grew up on. Forcing gamers to connect their webs to buildings in order to swing changed everything. No longer was he virtually flying through levels. Jump off the Empire State Building for example and you'll have to fall for a bit before you can sling through the city. It may seem like a small innovation, but it took the game to a level that no prior game based on the character had been before. It also makes Spidey more vulnerable. He's not a video game character that's nearly invincible anymore. Now more like the comic book character, he was far from immortal—one that you had to learn how to play as and one that obviously needed to use certain tactics in order to survive. Prior Spider-Man games on older consoles were more about button-mashing and just barely scratched the surface of what the character was capable of. The power of the PlayStation 2 helped make Spidey what he always should have been. Graphical upgrades and better control were a huge part of the overall package. However, it was the attention to the smaller details, such as the web-slinging engine that made such huge difference.

The crazy part is that innovation in the web-slinging engine, the one that defined *Spider-Man 2*, didn't actually have its origin in that game. "Very few people know that I did the initial swinging prototype work about halfway into *Spider-Man: The Movie*'s development; it showed some promise at that time, but not enough to change direction in the middle of the project," Jamie Fristrom, the game's lead developer said. "So we put it in a box and waited for the sequel."

Unlike *The Incredible Hulk* video game series, one which didn't know if it could or would be able to get a sequel, even after the wonderful *The Incredible Hulk: Ultimate Destruction* game, Fristrom and his team knew that the success of the first Spider-Man film and video game would lead to another film and of course, another game. With

plenty of lessons learned from the first game and the beginning of the web-slinging engine already in place, they were more than prepared for another run at the character and his world. At the same time, Fristrom and his team knew that in order for *Spider-Man 2* to be more than a sequel they needed to break new ground. They had to do something much different. That meant the combat system needed to be updated. More importantly, Spidey needed to be able to realistically web-sling.

"It took many months. When I first got started with the prototype, the hardest part was making it fluid," Fristrom said. "There were a zillion places in the code base that would set Spidey's velocity to 0, so his movement, jumping, combat moves would all be more controllable, but I wanted something where he wouldn't stop on a dime and lose his momentum. I'd worked on programming almost every aspect of game development up to that point—so prototyping the swinging was more of a design problem than a technical problem for me. That is, I knew the code wouldn't be difficult, it was only a question of could we make it fun. *Spider-man: The Movie* was a fun game, but the sequel took everything to a never before seen level."

Fristrom knew it worked well but quickly got continued confirmation that he was about to change the face of Spider-Man games forever. "Several months in, we were ready to show the web-swinging prototype to higher level executives," Fristrom said. "So our Activision-side producer looked at it and thought it was really cool and wanted to show it to his boss. His boss looked at it, and thought it was really cool, and wanted to show it to his boss. Before you knew it, Ron Doornick, COO of Activision, was in there checking it out! Everyone was really excited."

Because of the groundwork that was done in the first game that affected the sequel immensely, development on *Spider-Man 2* was a different beast when compared to many other AAA games, according to Fristrom. Confident after the success of the prior game in the series, the team knew what was being asked of them. There was never any doubt that the game was going to be canceled. There was no pressure from Activision. Working on faith and trust, Fristrom and his team had a job to do and did it. Although there is

a happy ending here, it's not a Cinderella story. It's more of a development cycle built on poise and dedication to a cause. Fristrom and his team were ready to make history. "We knew we were doing something really different and we thought it was crazy fun," Fristrom said. "What we weren't sure of was what the response would be, whether the difficulty curve would alienate too many people. We weren't as crunchy as most game development teams are said to be," Fristrom said. "You hear about teams working 80-hour weeks way past the deadline—for the most part, it was 40 hour weeks for us until maybe the last few months when we were doing about 60. But there was pizza."

Being able to realistically connect your webs to buildings and control Spidey in mid-air feels wonderful in *Spider-Man 2.* Make no mistake this is the game's main sticking point, pun intended. There's simply no other way to describe it. However, the overall game design is equally as stellar. With the open-world environment, it's easy to get lost in New York City, helping citizens and just "being" Spider-Man. As a result, it's the most fun Spidey game ever created. But that's not to say there weren't fun Spider-Man games before. *Spider-Man: The Movie*, the various Spider-Man games on the PlayStation One, *Spider-Man and Venom: Maximum Carnage* and of course Spider-Man's inclusion in the *Marvel Super Heroes* and *Marvel vs. Capcom* franchises proved old Spidey could be done right on consoles and in the arcade. *Spider-Man 2* just felt so different from all of those games. In a weird way, the game had gone back to its roots. The first Spider-Man game on the Atari 2600, which was essentially a *Donkey Kong* type clone that has Spider-Man climbing buildings, also forced gamers to connect webs to parts of a building to swing. Although rudimentary by today's standards, as Spidey's swings felt similar to seeing Pitfall Harry do it on a vine in the jungle, it proved that the mechanic could be done—and it could be satisfying. It just took over two decades for developers to get back to the basics of the character. A defining moment in his career, it was a challenge Fristrom took incredibly seriously.

Spider-Man 2 set the console standard for comic book–inspired video games.

"It was the biggest responsibility of my career up to that point," Fristrom said. "It's hard to decide if being the tech director of a giant franchise or being one of the founders of my own small company is bigger. It's just so 'me'—I've always liked games that had some subtlety. Going back to Atari's *Combat,* I'd rather make a

bank shot around a corner than play a game in an open field where you attack head-on. I'd never left as big a thumbprint on a game I worked on in a corporate environment."

Jamie Fristrom's ability to realistically make Spidey swing in *Spider-Man 2* **made the game iconic.**

And although controlling Spidey often felt simple and seamless, *Spider-Man 2* is anything but basic. The open-world representation of New York City and living world takes what *Grand Theft Auto* did a step further. More importantly, it allows you to finally feel like you are Spidey. The game's mission system and core gameplay also take the experience to the next level and give the game a feel that is anything but linear. From the small missions that would sidetrack you during the larger ones, as well as the story that included more than what the movie offered, this was easily the first time Spider-Man was been given his due in video game form. This is not an LJN movie-tie-in. This is not a cheap licensed game either. This was the game that changed the way superhero games were made. This was special. Without the success of *Spider-Man 2* in terms of sales and gameplay innovation, it's hard to see games the likes of *The Incredible Hulk: Ultimate Destruction* and the *Batman Arkham* series being taken nearly as serious. "There is very little out there like it,"

Fristrom said. "The later Spider-Man games made changes that people weren't crazy about, they were too bouncy or had buildings that were too large to feel fun or letting you swing from the sky again."

Not so ironically, Fristrom's swinging gameplay technique hasn't lived on in other Spider-Man games, but the developer has found a way to keep his best work relevant and important in today's gaming climate. "*Energy Hook*, is the swinging/trick game I worked on as an indie for Steam and PS4 and am super-proud of, but most people don't know about it," Fristrom said. "I worked on it for four years, continually polishing the swinging and totally prefer it to *Spider-Man 2*, though of course, that's a matter of taste. If you want to see what sort of swinging mechanic I'd make with no compromises on my own personal tastes, you should check it out."

In the end, *Spider-Man 2* was a celebration of what was great about games. Saving people gave you that same satisfaction in *Desert Strike* or *Choplifter*, while the open-world design was obviously an homage to Rockstar's *Grand Theft Auto* series. Combat, more fleshed out and fun than ever before, the design was rooted in a solid combo system that made *Spider-Man 2* feel like a classic beat-'em-up. Over a decade after its release, it's impossible to not see its impact on future games, not only in the franchise but others as well. Games like *Assassin's Creed* take from it every time the main character jumps off a building into a bushel of hay, while *Infamous*' races remind many of the same mini-games in *Spider-Man 2*. Although, better-looking Spidey games have been released since *Spider-Man 2,* as the latest PlayStation 4 Spidey, for example, looks like a technological marvel, Activision's movie tie-in, even after more than a decade since its original release, can still stand tall. It is the greatest movie-based game of all-time.

"It's the high point of my career in the sense of both being popular and being something I'm proud of—*Spider-Man: The Movie* actually sold more units, believe it or not, but we didn't think it was groundbreaking and nobody remembers it," Fristrom said. "So many people go their whole lives wishing they could point to an achievement like *Spider-Man 2*. I'm really glad that it's part of my history."

Howard Scott Warshaw, *Yars' Revenge*

From Star Castle Port to Game-Changing Shooter

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Yars' Revenge, originally released on the Atari 2600 in 1982, is difficult to explain when you're used to playing traditional shooters the likes of *Galaxian* and *Defender,* but it's on the back of landmark gameplay innovation and visual appeal that it's still a classic well over 30 years after its release. Forcing you to use all of your senses and marry several different gameplay elements in order to finish a level, as well as possessing the precision of landing that "perfect" shot, *Yars' Revenge* is essentially controlled chaos. Unique use of sound and colors make it almost psychedelic at times. Much like how you feel while rallying out an epic 500-note streak in *Guitar Hero, Yars' Revenge* is a wonderful game that's easy to get lost in and let your instincts take over.

To simplify, *Yars' Revenge* is a shooter where you use your "Yar," or fly, to shoot away or eat the shield of your enemy. This is not *Mr. Mosquito,* by the way. While it's just as quirky as the PlayStation 2 sleeper-hit, its gameplay was deep as a canyon for the time and is still a lot to grasp today for first-time players. The gratification of *Yars' Revenge* comes when you fire your other weapon, the Zorlon Cannon and hit the boss, or Qotile, with it in order to reach the next level. Unlike *Space Invaders* or *Galaga* that saw the player use one weapon to defeat their enemies with one or two hits, *Yars' Revenge* turned the whole shooter formula on its head. The end result is a special one that is arguably one of the best original titles on the Atari 2600.

Far from simple in concept and approach, *Yars' Revenge* is a rare game that marries sound, sight and touch, with layers that mimic modern movie making techniques more than any game did in the '80s. You could even make the argument that it tries harder than many games do today. By today's technological standards, *Yars'*

Revenge is a lightweight in size and scope as well, using just 4K bytes of ROM and 128 bytes of RAM, but its importance to the shooting genre can never be underestimated because it dared to redefine what a shooter not only should be, but could be.

Originally designed to be a console port of the arcade game, *Star Castle*, *Yars' Revenge*, originally named *Time Freeze*, eventually became the best-selling first-party game in Atari 2600 history. A game of firsts, *Yars' Revenge* was the first game developed by Howard Scott Warshaw, who went on to develop two other million-sellers on the 2600, *Indiana Jones: Raiders of the Lost Ark*, considered by many as one of the best movie-based games of its time and *E.T. the Extra-Terrestrial*, long thought of as one of the worst games of all-time. Warshaw was also the first Atari developer to receive credit for his game (his name appeared as a creator in the bundled-comic book inside the game's box, which he also wrote). Could you imagine Dave Jaffe not getting credit for his next game? It would never happen. Warshaw, on the other hand, could be considered one of the first real personalities in the industry.

The game's importance to the industry transcends the shooter genre, though. *Yars' Revenge* is also the first game on the 2600 to have a Pause feature (imagine not being able to pause a game today) and to feature a death animation and a full-screen explosion. The game's ion zone, a place in the middle of the screen where the gamer is safe from the drone missile that chases the player throughout the level, is actually the game's code, the first time ever in gaming history that a gamer could see the code that created the game. At the time, Atari was actually concerned that people would be able to see the code and steal it.

While these elements helped add to its visual allure and place in video game history, the reason why *Yars' Revenge* is still spoken about today is because it kickstarted your imagination. One of the most "open" shooters of its era, *Yars' Revenge* allows gamers to traverse the entire screen, unlike other popular shooters of the era which forced gamers either to stay on the screen or limited their movements from side to side. For one of the first times in the history of the industry and in the shooter genre, it felt like nothing was off-limits. The reasoning behind its unconventionality is easy.

Warshaw had zero game development experience before developing *Yars' Revenge*. Just a year later, he was one of the most-heralded developers in the industry.

"*Yars*' was my first game and I really wanted to have it make a splash," Warshaw said. "I really wanted it to be an exceptional game and not just a fun playing game. I'm very proud of it. It really defined what a video game is. I did some things in *Yars*' that made people take notice."
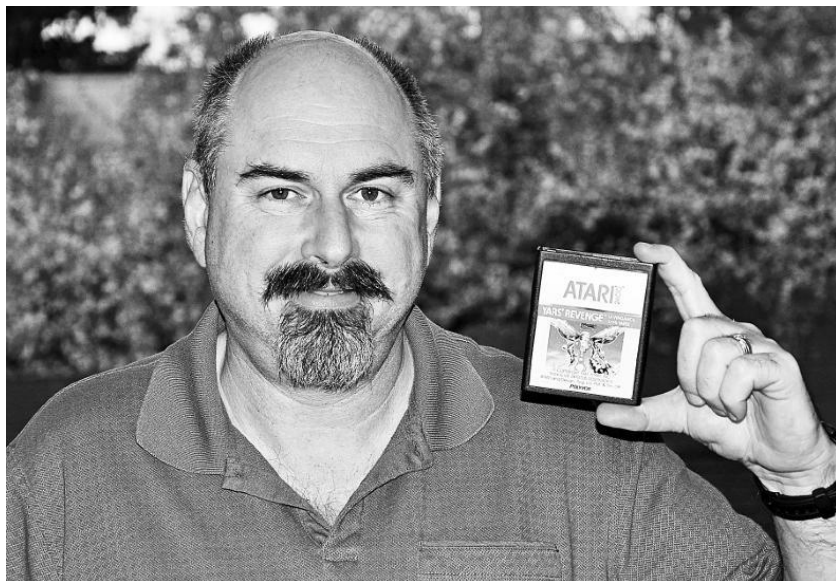
Howard Scott Warshaw's *Yar's Revenge* is considered by many to be the best original game on the Atari 2600.

Lush in color and in sound, *Yars' Revenge* is a love letter to the medium, a vastly different shooter, even by today's standards. That had everything to do with Warshaw's approach to development and life. Unlike other creators at the time, Warshaw found ways to get the most out of the software he developed on and was even known to put Easter eggs and secrets in all of his games. In *Yars' Revenge*, players can see his initials, frontwards and backward, HSWWSH,

after they kill the enemy ship, a Qotile, or Swirl, when it attacks the player during a "Mean Streak." He was also known to have a sense of humor. The main character of *Yars' Revenge* also makes a cameo in both of Warshaw's other Atari 2600 games, *Indiana Jones: Raiders of the Lost Ark* and *E.T.: The Extra-Terrestrial*. Atari took advantage of Warshaw's ability to be different and took things a step further.

In addition to the *Yars'* comic book, Kids' stuff also released an album for the game which contained a theme song and another record which had the backstory on the *Yars'* Universe. Both were produced by John Braden, the mind behind iconic theme songs from '80s shows the likes of *The A-Team, Magnum P.I., Knight Rider* and *Dukes of Hazard*. In a day where comic books based on video games are prevalent and the music in a game is sometimes as iconic as the game itself, Warshaw is a pioneer in a plethora of ways. "Everything I have done in my life has felt odd or unusual," Warshaw said. "Whatever I do, I tend to do it ways that no one else has done before."

It's crazy to think that one of the most iconic developers of the 2600-era and someone who has changed the industry dramatically didn't come to Atari to tell stories via video games, but that's exactly what happened with Warshaw.

"I originally came to Atari more for the technology than for making games," Warshaw said. "I came to Atari because I was working for Hewlett-Packard and it was becoming a real drag for me. I did a lot of microprocessor, real-time control programming when I was in college and I really liked that and the work I was doing at Hewlett-Packard was kind of boring for me. Atari was doing real-time control programming and I really liked the idea of doing that. That was the primary reason why I went to Atari. The fact that it was a really fun environment was also really good. As far as making games, I always liked playing games. When I was a little kid, like four or five years old, I'd play with my toys and I'd want to create something. Atari gave me an opportunity to put all of that together. I think I'm essentially an artist, but I think I wasn't prepared to explore that. Atari gave me chance to explore that in a way that was very real and productive, that was very meaningful to me."

But Warshaw's first game was supposed to be anything but a

meaningful, revolutionary title. He instead made it end up that way. His first creation for Atari was to be a port of the popular *Star Castle* game, in the vein of how Atari made a nice bulk of its business back then, by bringing lucrative arcade games to homes. Warshaw quickly realized that *Star Castle* couldn't work the way it needed to on the console. "*Star Castle* just wouldn't translate well," Warshaw said. "When you'd do a 2600 version of a coin-op game it was always clear what pieces would move over and what wouldn't. *Star Castle* was horrible, just a horrible worst-case scenario on the 2600. So I just looked at what I thought were the fun components of *Star Castle* and I tried to reorganize those in a way that would suit the 2600, but still deliver some of the fun of the game. That was the basis. As time evolved, the process became more and more involved. The thoughts of what putting it out on the 2600 looked like and doing whatever I could to make it a better game, to make it more fun, more compelling, more engaging and more visually attractive became my chief concern. The two major things that exist both in *Star Castle* and *Yars'* is that there's a monster that you have to break through a shield to attack and there are missiles that pursue the player that you have to avoid. I created new types of weapons because I thought it would be more challenging and less trivial."

After nine months of development, the game then went through months of playtesting. According to Warshaw, it was a pivotal moment in the game because Atari held testing with consumers in high regard. In a day before demos, trailers and widespread media coverage of the industry, playtesting was the only way a developer and publisher could get feedback for a game before release. It also was at times the place where a game went to die. Warshaw knew if the game didn't make it out of testing, it would never be released. To make matters worse, Atari's Director of Game Development, Steven Wright, matched it up in a playtesting exercise against *Missile Command*, one of the best-selling games on the system to see just how strong a game it actually was. According to Warshaw, *Yars'* is one of the most tested games in Atari's history.

"What he [Wright] said was that there were 'long-term playability concerns,' that was the thing that kept coming back," Warshaw said. "I don't know where it came from, but every time it looked

like *Yars'* was ready to go, there was another [play] test ordered. This was my first game and I really wanted to release it. I wanted it out and I wanted to see my game on shelves. That was an amazing thing at Atari and I really wanted my shot at it.

"In every test, it did very well. And then it all finally came down to a play test. The ultimate test where they bring in over 100 people who play games and they let them play both the target game and the control game and they compare both games and they rate both games. That's like the ultimate test for a game. One of the big questions, when you're having a playtest, is who you're playing against. The game they tested *Yars' Revenge* against was *Missile Command*, which was the best game on the 2600. Hands down, it was just a fabulous game; an amazingly faithful recreation [of the arcade game]. I thought, 'Holy crap, I'm screwed.'

"I went to the playtest—it was in Seattle, for some reason [Atari's headquarters were in Sunnyvale, California]. I flew up there and was there for the weekend and present for the test and all the sheets [results] as they came in. The first sheet, *Yars'* didn't do so well and I think, 'This sucks.' But at the end of the weekend, when all the smoke cleared, *Yars* beat *Missile Command* in the test and set a record for testing. No game ever tested as high as *Yars' Revenge* and not only that but if you look at four basic demographics, you have adult men, adult women, teen men and teen women, Atari really wanted to get women interested in gaming to expand their business and of the four demographics, *Yars'* tested highest with adult women. That was freaky. At the end of all of that, they said ok, we're releasing this thing."

With the war against *Missile Command* won and the dream come true of having a game on shelves realized, Warshaw's hopes were only somewhat realized. Despite the fact that it was the ladies that helped power *Yars' Revenge* past one of the Atari's most iconic games in playtesting in *Missile Command*, the game was instead marketed to small children. While the game still managed to become one of the most sought-after titles in the era and the Atari 2600, Warshaw saw it as a missed opportunity for his first game to have an even larger effect on the industry than it did.

"They said women didn't like space games, they don't like space

shooters," Warsaw said. "I told them that your testing shows that women liked the game. That was the thing. They knew what their testing showed. It was an interesting thing to see. It's not an unusual practice in business, people that think they're right. It doesn't matter what the information is. But to really see it in operation was eye-opening, interesting. A lot of interesting things to see at Atari. I came into technology second. I finished an Economics and Math major before I got into computers. I did my Master's work in Computer Engineering. So I had a lot more of a business background than most of the developers there. So it was interesting for me to see these things go on. I had a different take on a lot of that. Atari was an amazing place to go to business school."

Regardless of Atari's gaffe in failing to market *Yars'* to the audience that appreciated it the most, Warshaw's game was released, enjoyed critical acclaim and was beloved by fans. Even today, it's considered a landmark title on the 2600 and a game every hardcore gamer should play. From its start as a port to its development into one of the most unique shooters of the '80s, *Yars' Revenge* is a representation of Warshaw's continued efforts to change the landscape of the industry by being different. Or in the case of Warshaw, just being himself.

"When they told me the game was coming out, that was cool. To see commercials on TV, that was really cool. But what was amazing was to go into a store and see one of my games as the demo games that people could play in the store, that kids were fighting over the controller to get a chance to play," he said. "I worked months and months on this thing and sweated through all of this stuff and here it is on the shelf. Incredibly validating, satisfying and gratifying. It was just an amazing feeling. The idea that you could do something and put it out there and anywhere from thousands to millions of people would engage with your game and get entertainment from that game and get some type of experience, from something you did, that was the drug at Atari. They talked about drugs at Atari, but the main drug at Atari was that one of your games was entertaining millions of people. That was cool."
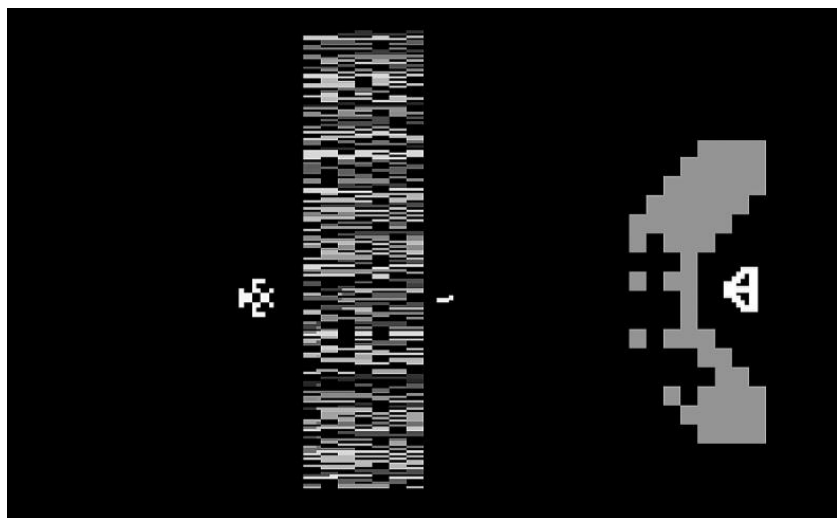
The side view and pace of *Yars' Revenge* made for an entirely different type of shooter.

In terms of legacy after *Yars'*, Warshaw continues to play an important role in popular culture. Appearing in the cult animated sitcom, *Code Monkeys*, as well as the *Angry Video Game Nerd: The Movie* and the documentary, *Atari: Game Over*, Warshaw's games still have an intense cult following. *Yars' Revenge*, like Warshaw, has done anything but fade away and has also been rereleased on the Game Boy Color, Game Boy Advance, Xbox 360 and the Atari Flashback consoles. Warshaw even has an unreleased sequel to *Yars' Revenge*, that he said he may release one day. [This game is not connected to the game, *Yars' Return*, currently on the Atari Flashback consoles or the Facebook game, *Yars' Revenge: First War.*] *Yars' Revenge* has even inspired other creators, as another game in the *Yars'* franchise was released in 2011 by Killspace Entertainment for Windows and Xbox 360, titled *Yar's Revenge*. Warshaw had no input in the game at all.

"That was pretty lame," he said. "I was never consulted on the creation of the game. No one that made that game ever spoke to me. That was kind of a shame. They just basically took the name and tried to make something that was along those lines. They

committed one of the fundamental sins that I felt was inappropriate for *Yars' Revenge* in that they made it a rail shooter. You went through the level the way they wanted you to. You couldn't go wherever you wanted on the screen. To me, the idea that you can go where you wanted to go and play the game the way you wanted to, that was a very important tactic in *Yars' Revenge*."

But in spite of all the remakes and ports of *Yars'* over the years, they'll never be as special as the original. In the end, Warshaw has one of the best track records in the history of the business. His ability to create memorable titles that are still spoken about today will never be questioned. Although Warshaw's portfolio isn't the largest in the industry, having completed just three games for the 2600—all three sold over a million copies, with *Yars'* being the first. Representing both the Yin and Yang of the console with *Yars'* and *E.T.*, Warshaw has zero regrets when it comes to his work on the Atari 2600.

"I have the greatest range of any game designer in history," Warshaw said. "How many people have the best and the worst of anything in any production category? Not many."

Dan Geisler and Randy Breen, *Road Rash*

The Game That Kicked *Hang-On* and *Akira,* in the Face

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More often than not, the majority of video games released fall neatly into one huge cliché or genre. Regardless of what genre or time in video game history in discussion, it'll always be too easy to see where many games fit into the landscape. Even today, developers continue to churn out mediocre first-person shooters and new sports titles with minimal changes ad nauseam because there will always be a market for them. In the early '90s, even with a blossoming market and plenty of different consoles available to develop on, this was still the case. Electronic Arts' *Road Rash*, however, was anything but a predictable title. Gritty, fast and dangerous, it was never done before and hasn't been done the same since. But for all of its originality and flavor, it was originally marked as too different. There were times it almost didn't make it out of development. Regardless, it's a game that ultimately changed the business forever.

From the start, Electronic Arts didn't understand *Road Rash*. But that didn't stop it from becoming one of the most iconic series the publisher ever released. While its place in video game lore isn't nearly on the same level as the *Madden* or *NHL* series, it's easy to say that games the likes *OF Burnout*, *Vigilante 8*, *Twisted Metal* and even *Mario Kart* may not have ever gotten past the prototype stage or established a legacy without it. Simply put, what *Arch-Rivals* and *NBA Jam* did for the basketball genre, *Road Rash* did for racing. Carnage-filled and fun, it gave racing games more of a soul than they've ever had before. While games like *Hang-On* and even *RC Pro Am* were fun to play, *Road Rash* made you laugh and your hands sweat. It was silly, snarky and sneaky fast—all at the same time. Unlike any racing game prior, it often made you forget about where you finished in a race. Instead, the satisfaction of something the

racing genre had never experienced before prevailed. The thought of punching or kicking someone in the face.

But to say that *Road Rash* was all about combat just wouldn't be fair. To say it was a fast game would be a gross understatement as well. Combining elements of *Hang-On* and *OutRun*, *Road Rash* featured smooth control, making it easy to control your bike around wild turns and hills. However, clashes with police, oncoming traffic, as well as street poles and animals definitely complicated matters more than your usual racing title. Easily one of the first racing games to make you feel like you were actually in a race, *Road Rash* requires a plethora of precision and skill. As a result, it wasn't for everyone. You had to invest time in it to get really good. The pay-off needed was there as well because with every race won, cash came to improve your bike. That's where a ton of the fun came in. Simply put, between the physics engine in place and the deep gameplay, there was not another racing game like *Road Rash* out in 1991. And that's not even the best part. Being able to punch and kick your opponents and nail them with weapons put a twist on gameplay and sometimes made up for your own lackluster racing ability. A racing game you could easily get lost in and kill hours of time with, *Road Rash* was all about atmosphere. It had it in droves. After staying away from home consoles and focusing mainly on the PC games in the late '80s, thanks in part to the uncertainty following the collapse of the industry in the early '80s, Electronic Arts began to slowly take creative chances on the Sega Genesis. Treating developers as artists, they were hungry for unique game pitches. A game like *Road Rash* fit that bill perfectly.

"I conceived of the premise of the game and wrote the story treatment for a combat motorcycle racing game titled *Road Rash on Mulholland Drive* and pitched the concept to exec staff in late '89," *Road Rash* producer, Randy Breen said. "During the original presentation, I showed inspirational video footage from motorcycle gang chase scenes in the movie *Akira*, the bicyclist crashing after an opponent shoved a bike pump through the spokes in *Breaking Away* and Grand Prix Moto footage of competitors elbowing and kicking each other during close racing. Ultimately, most of the elements described in the original treatment made it into the game including road traffic, obstacles, police chases and combat between riders.

The pitch included descriptions of dramatic crashes in the spirit of cartoons from the 70s. Exaggerated and entertaining, they were a sort of payoff even in loss, gut wrenching, but never gory."
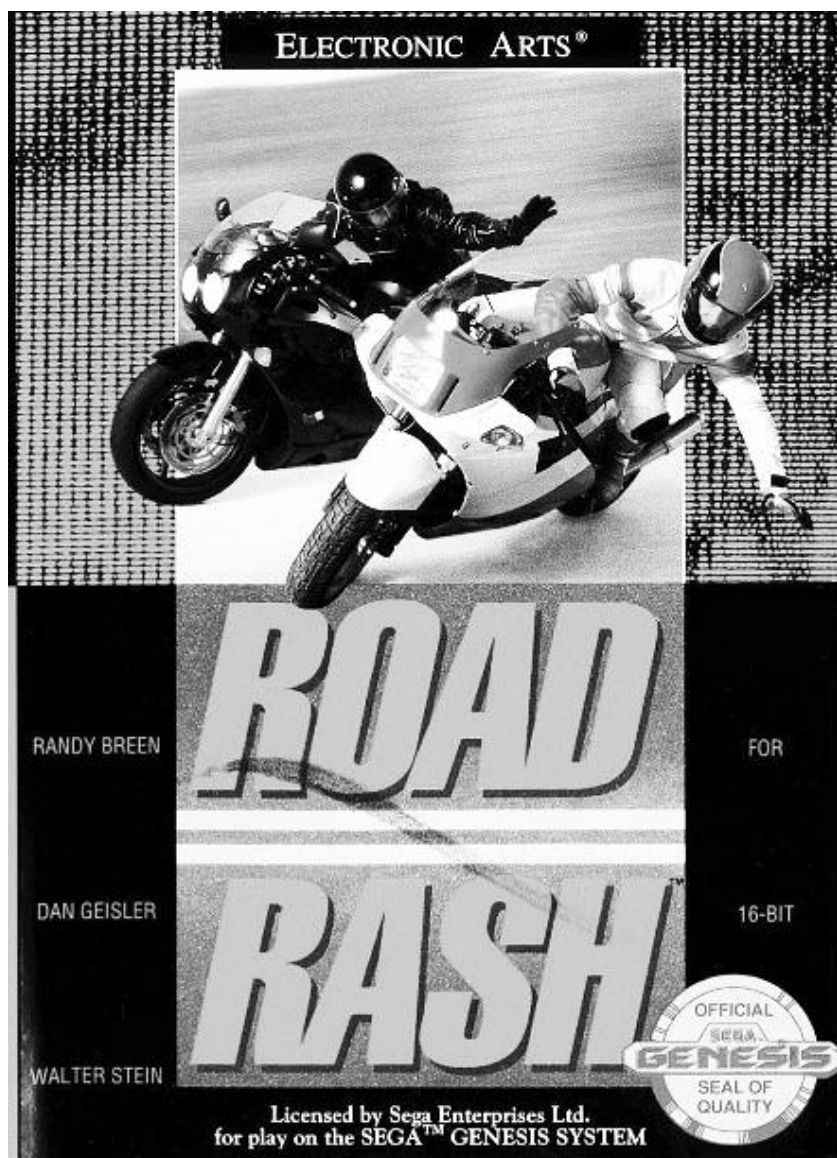
Road Rash is easily one of the most popular games on the Sega

Genesis, which has everything to do with its frenetic gameplay.

Designed to disrupt the marketplace, *Road Rash* combines fun with massive technological achievement. What looks like a simple racing game by today's standards was revolutionary in the early '90s. Every genre-defining game has a clone of some sort. You know, *Grand Theft Auto* has *Saint's Row* and even the countless wartime first person shooters borrow from one another. *Road Rash* has none. If that doesn't say a ton about how ahead of its time it was, nothing will. Make no mistake, 20 years after its release, it is still a unique game of the 16-bit era. That's because, from the start, the intention was always to be different.

"Based on my experience with prior driving games, I felt strongly that there was an opportunity for a game not solely focused on racing," Breen said. "I personally enjoyed simulations, but I had witnessed people get bored with the monotony and rigor of learning a track and repeating the same course with only occasional moments of excitement around an opponent. I wanted a sense of realism from the control of the bike, but also momentary events that created excitement and took your attention away from focusing on the road ahead."

Simply put, *Road Rash* forced developers making racing games to care more. To think about a story. To think about characters. To actually consider that there could be real dialogue in a racing game that could force a gamer to want to continue playing. To force developers into the notion that solid controls and graphics weren't enough. With *Road Rash*, the days of gimmicks were over. Gamers that wanted more got it and every other developer in the genre had to work harder than ever to get an audience. Gamers that liked fighting games, but weren't fans of racing were all of a sudden attracted to the genre. Racing aficionados, bored with the market, had a cool new game that defied the conventions of the genre. For that alone, its place in video game history is an important one.

To understand the impact that *Road Rash* had on the video game scene, you have to understand the way games were made in the '80s and early '90s. In 1991, the teams behind video games were

still small ones, far from the massive teams that put together games the likes of *Pokémon* and *Call of Duty*. The team responsible for *Road Rash* were developers Dan Geisler and Carl Mey, with Walter Stein as programmer and Breen as producer. Like many EA games at the time, Ron Hubbard, who Geisler calls "a true Jedi master," provided the score, putting all the pieces in place. However, as is usually the case in video game development, *Road Rash* was originally supposed to be something completely different from what it became. That has almost everything to do with the team involved in the project.

"I left Spectrum Holobyte in late 1989 and got hired by EA to save an NES project that was in trouble called *Mario Andretti Sprint Car Racing*," Geisler said. "Randy Breen was the producer, who had just finished *Indy 500*. So, Randy, Carl and I had meetings and decided to scrap that project and do a racing game on the Genesis. Several ideas were tossed around, including quad runners, etc. But Randy wanted motorcycles. I remember mentioning this a few weeks later, saying something like 'So I guess we're doing a motorcycle game?' And he said something like, 'We were always going to do a motorcycle game.'"

The best part of the *Road Rash* team was that everyone brought something special to the project. Over the course of his career, Geisler worked on games the likes of *BattleTanx*, *Army Men* and *Tetris*, while Breen's credits are even more impressive, serving as a producer for *John Madden Football II*, *Fade to Black* and *Soviet Strike*. Stein, who Geisler admits was his right hand during development has a programmer credit for the first three games in the *Road Rash* series and was a tester on the awesome *Pride FC Fighting Championships* game. Mey is far from a slouch either, playing a role in several EA Sports Classics the likes of *Lakers vs. Celtics*, *PGA Tour* and the LucasArts gem, *Maniac Mansion*. With this combined effort, *Road Rash* had all the right pieces in pace for something special to happen in development. That's exactly what happened.

"Randy was a total sim guy, yet had a great sense of humor," Geisler said. "He was meticulous, about bike stats and game tuning. He wrote almost of all the dialog in the game. Carl was great. His expertise doing console games was immeasurable. It wouldn't have

happened without him." With an idea penciled in, Breen, Geisler and the team then began to flex their creative muscles, making it clear what type of game they wanted. While it was obvious they all wanted something a bit different, there was plenty of compromises. That sacrifice ultimately made *Road Rash* the game it would eventually become.

"When we decided to do a motorcycle game, I wanted to make *Hang On* obsolete," said Geisler. "In that respect, it was successful. The final game kind of evolved throughout development. I was so deeply into the game that I remember while driving my motorcycle to work, I instinctively wanted to punch or kick other bikers. It took a conscious effort to not follow through with that compulsion."

Early on, however, Geisler's job wasn't to make the game gritty. It was to make sure the game had a sense of speed and simply put, worked. Having designed *Vette!* on the Mac and DOS a few years before, Geisler was the perfect man for the job of creating the game's foundation and framework. If you haven't heard of *Vette!*, what it lacks in popularity, it makes up for in technical precision. With a slew of camera angles, multiple ways to finish each race and a beautifully accurate map of San Francisco, Geisler was all about the details. *Road Rash* was a huge opportunity to take his skills to the next level.

"The first six months of development were devoted to getting a prototype up and running," Geisler said. "I described the data structure I needed to make miles of tracks and said that we needed an editor to place Bézier curves and objects on the sides. I forget who made the editor. But it worked well. I took this data and projected it into 2D space. Carl told me about a technique for catching horizontal retrace interrupts and I used that to adjust my background pointers and horizontal and vertical scroll registers. This allowed me to control the parallax scrolling of the horizon background and width of the road at any given scan line. I also came up with a scheme for quick image scaling. Other games had separate images for different distances from the camera. My system had an unlimited number of sizes for a given image, so we could draw things in perspective. This took six months."

When Electronic Arts got their hands on a playable version,

however, they didn't understand what Breen, Geisler and the rest of the team's intentions were. EA was naturally skeptical at first because a game like *Road Rash* had never been made before. That could have derailed many young developers, but if anything let Breen, Geisler and the rest of the team know they couldn't give up. "I showed it to the powers that be," Geisler said. "They became seasick. I knew I nailed it at that point. The next 12 months was devoted to making the rest of the game."

With 60 miles of track, plenty of curves for racing fans and more than enough straightaways for the fighting fan, *Road Rash* successfully married both the fighting and racing genres into something new and different. That was something that had never been done before. It wasn't enough to appease EA during development, though. "EA tried to kill the project," Geisler said. "Marketing and sales kept asking, 'what is this? is it a racing game, or a fighting game?' They didn't have a pigeon-hole for it. It was a new genre. Richard Hicks and Randy saved it and got us a six-month extension on our dev schedule to finish it."

It certainly didn't help either that the game's first public showing, at the 1991 Consumer Electronic Show, didn't go as planned. "It's not unusual for new titles to face a moment of truth prior to initial release. There is much more in doubt with an original and it takes time to iterate and balance," Breen said. "If you're doing anything really new, it's a discovery process to identify the product's strengths and refine them."

"EA was making a big deal of its presence on the Genesis in January 1991 so they wanted to show every Genesis title under development at CES. Like E3, this was also used as a way to test interest and calibrate sales forecasts. We had been in development for several months, but still implementing with lots of content in progress. The artwork was incomplete and unrefined, the animation wasn't performant yet. I think it was a surprise that we had to show it. It was too early and I argued to wait. It got shown anyway to support company goals. The flaws were apparent. As a result, after returning from CES, it was at risk of being killed. I had to rejustify the project. I had strong feelings that we had good vision and were capable of accomplishing our goals. I went into detail about how

issues could be corrected and was able to make an effective case. I worked hard with the team to get the details right. Walter Stein played a pivotal role at that time, optimizing performance to get the frame rate up to an acceptable level. The team pulled together and we were able to change everyone's mind, shipping the first title late that year."

Once the game was finished and eventually released, EA knew they had a hit on their hands. Garnering critical reviews from *Game Pro* and *Electronic Gaming Monthly*, *Road Rash* was an undeniable success upon release. Spawning a series of ports and sequels on the Amiga, Super Nintendo, Nintendo 64, Sega Genesis, Sega CD, Master System, Sega Saturn, 3DO, Game Boy, Game Boy Color, Game Boy Advance and PlayStation, it's hard to deny the game its due. "After finishing *Road Rash*, we immediately rolled into the development of *Road Rash II*," Breen said. "The Genesis versions were considered to be the most profitable games in the company at the time. *Madden Football* sold more units but carried a heavy license. As an original product with no royalties, *Road Rash* outperformed for EA."

Even a few years later, when the game was updated and rereleased on the Sega CD and 3DO, it continued to evolve. With an equally as gritty soundtrack that featured Soundgarden and a few other hard rockin' bands, the game was still a big seller and a favorite amongst gamers years after its original release. "I never thought about it at the time," Geisler said of the game's initial success. "I knew it was the game I wanted to play, but it didn't exist. I had confidence because I had designed and programmed a previous racing game that was well-received and basically, I didn't give a shit about what other people wanted other than our team."

Despite its ability to draw in fans and critical acclaim, much like *Mutant League Football*, *Road Rash* was not a part of Electronic Arts' "big picture." However, unlike the *Mutant League* series, *Road Rash*'s legacy is a beefy one. As a matter of fact, sequels for *Road Rash* were successful enough to keep the series alive for over a decade, across the 16-bit and 32-bit console generations as well, even if they were never promoted to the same lengths as EA's other titles. Even the PlayStation's new versions of *Road Rash* and *Road Rash 3D*

sold over a million copies, while the last game in the series, *Road Rash: Jailbreak* was still a moderate success, selling 500,000 combined copies on the Game Boy Advance and PlayStation. Sadly, according to Breen, the technology could not keep up with the development of the series.

"The challenge for *Road Rash* was moving to fully-rendered, articulated 3D graphics on underpowered equipment while maintaining the same visual quality. The photographic quality of the rotoscoped images couldn't be approached in 3D. The complexity of the models and the animation made performance exceptionally challenging," Breen said. "By comparison, *Need for Speed* had to animate wheels and animate reflection on the back window, but the cars were largely static and less complicated shapes. *Road Rash* had to render the bike, the rider, and their weapons, animate each and be able to separate them. Collision detection was equally challenging. The team managed to overcome these challenges and deliver the game, but it came in late and over budget. It was ultimately successful, but not as profitable as prior versions."

Regardless of its ability to thrive on 32-bit consoles and beyond, Geisler is still more than happy with the game's legacy though and sees it as a time where he got to make exactly the game he wanted. "I think the gameplay was uncomplicated by all the bells and whistles of today's games," Geisler said. "Every game has to be all things to everybody. *Road Rash* was pure. Also, I feel it was the first racing game to have combat. It started a genre. And no, *Spy Hunter* doesn't count."

Although Geisler attempted to bring the series back with a spiritual successor *Hard Rider: Back in the Saddle* a few years ago and was unable to get adequate funding, it doesn't change the fact that *Road Rash* is a game that is still played to this day and one that changed the industry. In fact, the game will get some type of sequel, at least in the spiritual sense. *Road Redemption*, developed by Ian Fisch, is attempting to bring back *Road Rash*'s beloved gameplay. That game, which has been delayed several times, is set for a 2017 release on the PC, Mac, PlayStation 4 and Xbox One. Although that doesn't change the fact that the *Road Rash* series, despite its cult status

amongst fans and track record of success has laid dormant for over a decade, Geisler and Breen both look back on the time spent on the series as some of the best of their careers.

"Road Rash was only possible by the amazing and uniquely talented team of engineers, designers, artists, producers, directors, and marketing scum," Geisler said. "I'm eternally thankful for having been able to be a part of that amazing group in that wonderful moment in time."

"I'm thankful for having worked with Dan and Walter," Breen said. "They complimented each other. Dan had practical experience with another driving game and created the framework for the project. He felt strongly about building tools into the game itself that allowed us to make adjustments on the fly. I could go off and tune to give in versions of the game that could then be hard coded. They allowed us to iterate repeatedly and ultimately led to the game's feel. Walter was a quieter personality and thoughtful. We were pushing the limits of the machine from the beginning and he ultimately made the difference for us in terms of extracting necessary performance. Several artists played key roles—too many to list, but Connie Braat iterated repeatedly on the animation to get it right. Arthur Koch helped establish a look with color and backgrounds within the server limits of the Genesis that made the game a unique, pseudo-realistic impression."

Mike Posehn and Richard Robbins, *Desert Strike*

From Killer Choplifter Clone to Classic

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From the arcade and Atari 2600 to the PlayStation 4 and handhelds, games with helicopters heavily featured have always been a fixture in the industry. But it wasn't until 1992 that they actually mattered enough to be more than a passing novelty or gimmick. Nothing against games the likes of *Gunship*, *Thunderblade*, *Thunderstrike*, *Infiltrator* or even the iconic *Choplifter*, but Electronic Arts' *Desert Strike* changed the mold for helicopter-based video games entirely. Thanks to unparalleled attention to detail and realism, as well as a fun mission-based system that left plenty of room for each gamer's imagination, *Desert Strike* is a classic. Using an Isometric 3D perspective playing field, third-person view and first-person controls, *Desert Strike* was—and still is, one of the most iconic aerial combat games of all time. Ironically, it's also a game that Electronic Arts nearly killed on several occasions, for a variety of reasons.

Desert Strike is the brainchild of developer Mike Posehn, who wrote every line of code for the game, except for the music. While it's considered a huge success for EA and for over a decade was one of their staple titles, it had humble beginnings and was a huge risk, from day one. "I wasn't an Electronic Arts employee," Posehn said. "I was an outside developer and along with Tom Casey had just finished work on *Deluxe Video* for the Amiga [published by Electronic Arts]. Trip Hawkins [CEO and EA founder] came to me and asked if I would like to try writing a video game. As a former Apple person, Trip was very fond of *Choplifter* and thought it would be cool to have a video game involving a helicopter that could rescue people."

Using *Choplifter* as a base, Posehn had something much grander in mind. Something that had never been done before. If you've ever played *Choplifter*, you know that it's an often frantic arcade

experience, but one that's thin on features. A side-view helicopter game that placed more emphasis on rescuing people than destroying enemies, it had identity issues, but still managed to entertain. Spawning sequels on a variety of consoles, its existence and success, however, made the creation of *Desert Strike* possible. Make no mistake, *Choplifter* built the genre into something credible. What *Desert Strike* did though was take that formula, redefine it by making the game equally about combat and saving hostages and give it a story that connected the player from the moment they started the game. "I wasn't a gamer, but my inner nerd thought the combination of an isometric point of view and the look of miniature vehicles might be cool. We signed a publishing agreement and I spent the first year working on the game engine code for the physics, field of view, environment, weapons and the helicopter [an Apache, of course]. As an outsider with a contract, I wasn't getting a paycheck. I would periodically draw advances against future royalties. Any money I drew would be subtracted from royalties [if any] in the future. I was taking a big risk that might or might not pay off."

Originally called *Beirut Breakout*, the game had potential, but needed something more. More basic in approach and lacking the sophistication of *Desert Strike*, it was, essentially a better playing version of *Choplifter*. However, it was a step in the right direction. "*Beirut Breakout* was just a helicopter flying around at the time," *Desert Strike* Producer Richard Robbins said. "Mike had some good physics for the Chopper, but not much else. I saw potential and had ideas about the game with linear missions, EA gave me the space to make it happen."

The fact that *Choplifter* was a success and something EA enjoyed ended up playing a critical role in *Desert Strike*, but it wasn't the only reason to play. *Desert Strike*'s attention to detail, from the way the chopper moved, to the way its weapons sounded, made it better than the already five-year-old *Choplifter* and anything but an arcade game. This was a much deeper experience. But in order to keep Hawkins and EA satisfied, rescues had to be a part of the game. Posehn, like any good developer, found a way to make it work. "The rescues were a key to the emotional satisfaction of playing the game—Trip [Hawkins] was right about that part of *Choplifter*,"

Posehn said. "It felt good to rescue those little guys. It is curious how those little 64-pixel animated figures running to your helicopter could provoke an emotional response. It also provided a good strategy element, because the rescued guy would give you a clue on how to proceed with the level."
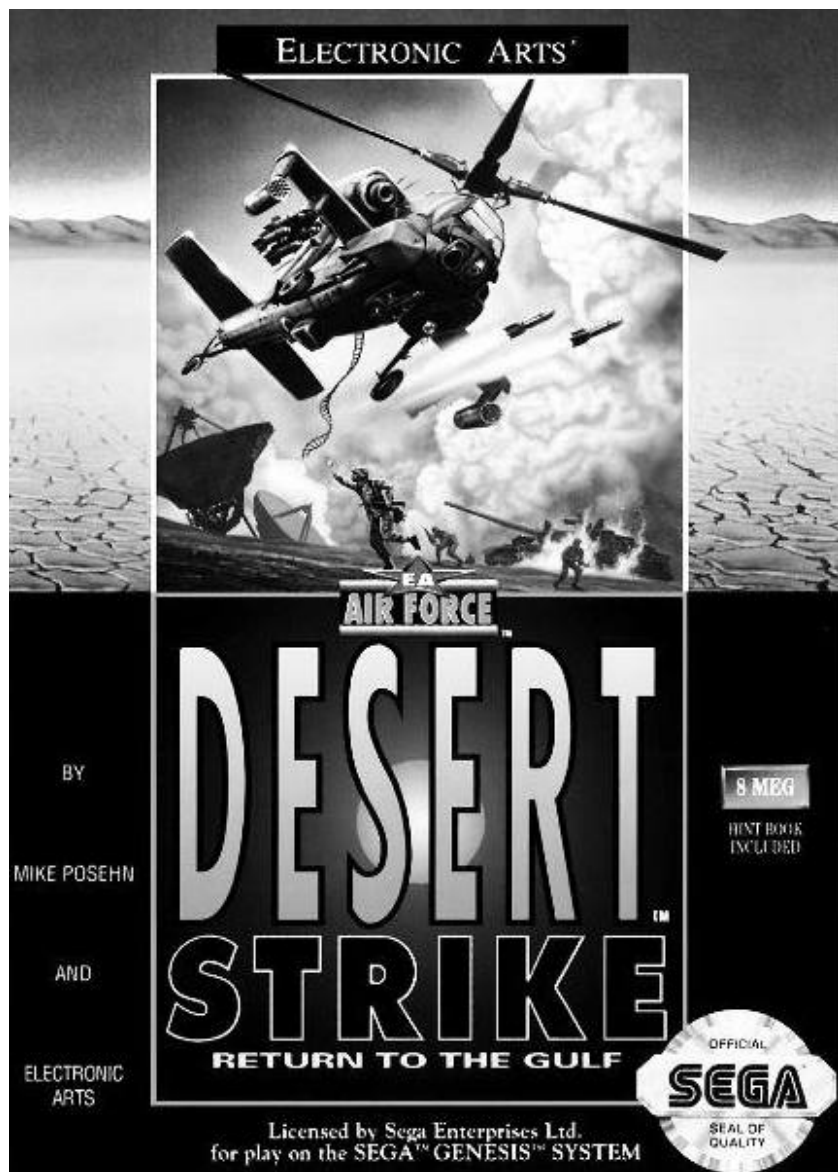
Desert Strike is not only a wonderful aviation-based combat game, it's a fun adventure game as well.

Taking the rescues of *Choplifter*, Posehn's one-of-a-kind

development skills, technological know-how and knack for originality and Robbins and John Manley's ability to take that to the next level enough to satisfy Electronic Arts and *Desert Strike* was born. Despite the fact that it's a hefty adventure full of various gameplay elements, over 20 years later, Posehn still has his reasons why the game is close to his heart.

"I'm very proud of the feel of the helicopter flying controls," Posehn said. "I spent a lot of time getting that right. Also the dynamic camera movement. On that small NTSC screen, I wanted as much of the world as possible to be visible in front of the helicopter. If you notice the screen scrolls in a clever way as the chopper rotates. I don't think people appreciated the sophistication of the code underlying that game. The Genesis was a powerful platform, but it took a tremendous amount of effort and innovation to get the necessary performance [hence two years in development]. I'm very proud of the way the Apache helicopter looked and behaved. I spent a lot of time coding the physics. My Ph.D. in engineering gave me the understanding to reduce a complex set of differential equations of motion [second order, six degrees of freedom] to a small bit of optimized assembly code. There were no clock cycles to spare. I'm also proud of the graceful performance degradation during complex multi-vehicle and weapon scenes. It worked out pretty well."

With such a small team at the helm of *Desert Strike,* Posehn, Robbins and Manley, the game's Assistant Producer, all put their own stamps on the series. It's fair to say that without any one of their contributions that the game may not have been released. "We had a great relationship. I would say Rich worked on the story and John worked on the 'fun factor,' but of course, each contributed to both," Posehn said. "They came up with some cool mini-missions. Once I had written the basic game engine, Rich and John would think of something new and ask 'can you do this?' Luckily, I had created a pretty robust engine and could expand to do most of what they asked. The second year of development was spent doing this and creating a world builder tool to layout the worlds, vehicles, characters, levels, milestones and SNAFUs."

The idea that *Desert Strike* wasn't your typical video game—you

could do all of the things that *Choplifter* did in terms of rescuing prisoners and have fun combat missions in the vein of *Thunderblade*, but with the most realistic gameplay engines of its time, it's one of the most complex 16-bit games ever. Getting it to even work on a console proved to be a bigger challenge than originally expected.

"The single biggest struggle was getting the game to fit on the cartridge. If you look on the game box, you will see that it was an '8 MEG' game. That is 8 mega-BITS, not mega-BYTES. It was a tight fit —I think there were less than 16 bytes I didn't use on that cartridge. To get it to fit I needed to devise special purpose compression methods for each type of data—typically looking at images as 8?8 pixel characters and compressing them using a look-up table and a limited color palette."

Regardless of how tight a squeeze that game was, the team's patience was tested on many other occasions. "The last six months of work was very intense—ten to twelve hour days, seven days a week," Posehn said. "John Manley would draw maps of the levels on a large conference table and place little buildings and vehicles on it. We were always tired and frequently joked about being 'burnt' or 'toast.' When someone made a suggestion we would say, 'Ok, I'll do that in my spare time between 2 AM and 3 AM.'"

Desert Strike was also a game that Electronic Arts didn't quite comprehend. And why would they? Up until that point, aerial combat games were all about fun and fast gameplay. Games like *Choplifter*, *After Burner* and *1942* set the standard high and many other companies tried to create clones, rather than innovate and expand the genre. While *Desert Strike*, like the aforementioned games, was fun to play, it had more in common with an adventure game than it did any other game with a helicopter or jet on the cover. "The first pre-alpha version had a great look and feel that we were confident would make a fun game, but I still had to battle a fundamental prejudice within EA," Posehn said. "I had chosen a third-person point-of-view [you are above the helicopter looking down] with first-person controls [directions as if you are inside the helicopter]. This was totally against the prevailing wisdom of most EA producers who were used to 2-D scrolling games—they thought people wouldn't get it. Luckily my producer [Richard Robbins]

agreed with me and gave the project the green light."

Robbins, a fan of Posehn's work and someone he calls "a true professional," understood that Electronic Arts just didn't get what made *Desert Strike* such a special game. On what at times felt like a crusade, Robbins had no problem sticking his neck out for the project. It ended up being one of the driving forces in the game's success. "Marketing thought the game was too difficult, I fought back," Robbins said. "Marketing also thought the name [of the game] was like 'people on a picket line in the desert.' I fought that too."

The fact that Posehn wasn't a gamer gave him a unique frame of mind, one that boggled Electronic Arts at first, but ultimately made the game a classic. Rather than make something that was attached to common industry cliché, the developer wanted to make something unique. Something that would stand the test of time. It's because of this that *Desert Strike* plays differently from every other aviation shoot-'em-up that was released prior and is even a markedly different game than *Choplifter*, a game it borrows a lot from. And make no mistake, nearly every aviation game released after borrows from it. From sub-quests to an ability to roam a level and accomplish tasks in the way that you want, it's the first sandbox game in the shoot-'em-up genre. Make no mistake, this is not *1942* or *Space Invaders*. *Desert Strike* is a game that has few borders and always challenges the imagination—and your reflexes.
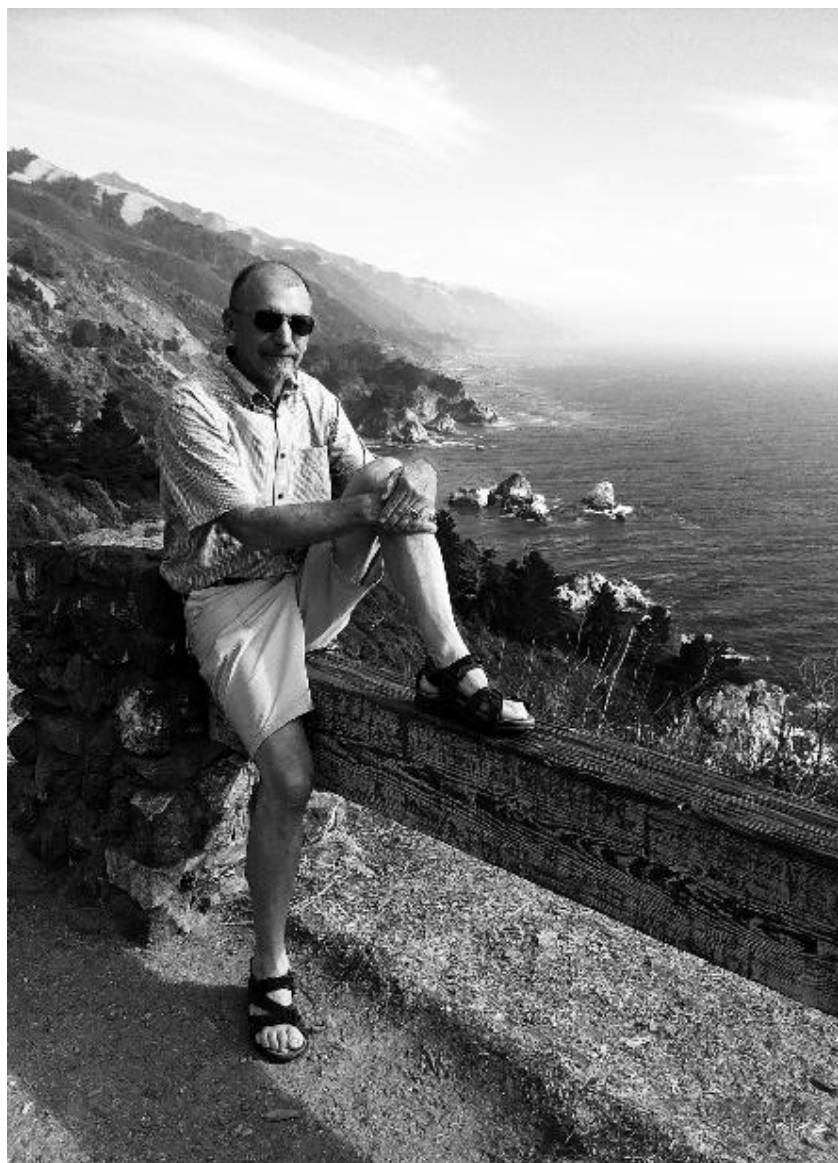
Mike Posehn's ability to perfect the physics of the helicopter was one of the main reasons why *Desert Strike* was a special title.

"I didn't like the linear play style of most games—I thought it was

boring and repetitive. I liked the sandbox idea of a world where the player has the freedom to roam the world and devise his own strategy for success," Posehn said. "Of course, the game needed some structure to provide a sense of accomplishment and reward. There had to be a way to measure success and progress through the levels. I thought each level should have a series of mini-missions. Finishing a level would be impossible unless you first completed the mini-missions. For example, you needed to destroy a radar installation before attacking a base. The player could figure this out on his own by thought, trial and error. I implemented this by adjusting the enemy AI. If the radar wasn't destroyed, the enemy defenses would be impossible to defeat. But if you destroyed something critical to the mission it was a SNAFU that ended your play."

As a result, *Desert Strike* is still considered by many as one of the toughest 16-bit games ever released. Those issues regarding the game's difficulty and EA's inability to understand what they had made *Desert Strike*'s road to completion far from simple. And even once Posehn and company managed to land *Desert Strike* on store shelves, the media's coverage of the game added an entirely new element to the discussion. Much like the mainstream news' coverage of the gaming industry of the past, they had no idea what the game was about. They were just out for a story. Unlike previous games in the genre, *Desert Strike* had one. But the game's actual story was completely different from what the media told prospective buyers and gamers.

"There was a CNN news story claiming *Desert Strike* was about the Gulf War. We had worked on the game for two years, well before the war. *Beirut Breakout* was Desert's working title and we were working off the news of the day regarding terror acts, hostage situations and military provocations. Momar Kadafi and Saddam Hussein were the primary real-world characters. The game gave players a way to 'do something' about the bad things going on in the world at the time. The game is not a war scenario—more like a Special Forces operation."

In spite of some controversy, clashes with EA and the two-year development cycle, Posehn, Robbins and Manley handled the game

with precision, polish and even a bit of panache and humor. That ability to challenge your wits and even tickle your funny bone give it more depth than the majority of flight combat games released today. "At the very end of the game, with George Bush, Sr., on the white house lawn, the original version had the dog pee on the President's wife at the very end of the concluding song," Robbins said. "We had that in the game but I had to tell my boss, or risk losing my job when it got out. Well, the animation is still in there."

It's hard to think a game with so many bumps in development and issues in marketing and the media could be a success, but *Desert Strike*—and the series of sequels that followed it on every console from the Sega Genesis to the Game Boy Advance, are the Teddy Roosevelt of helicopter-based aviation games and along with *After Burner*, *Ace Combat* and the original *Star Wars: Rogue Squadron*, belong on the Mount Rushmore of aerial adventure games.

"It went from almost killed," Robbins said. "To EA's first original action hit."

Garry Kitchen, *Bart vs. the Space Mutants*

The First and Best Simpsons Game Ever

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Since its episodic television debut on December 19, 1989, The Simpsons have been a pop culture phenomenon and changed the American sitcom world forever. From toys, clothing and even a major motion picture, The Simpsons have done it all and paved the way for shows the likes of *South Park*, *Family Guy* and *American Dad*. The Simpsons have even had a huge impact on the video game industry, with over two dozen games, released on over two dozen systems over the past quarter century plus. However, back in 1991, developer Garry Kitchen, known for his work on Atari 2600 classics such as *Donkey Kong* and *Keystone Kapers*, created the first-ever Simpsons game, *Bart vs. the Space Mutants* on the Nintendo Entertainment System. Just like the risks the television show was taking as animated primetime situations weren't the norm, the first Simpsons video game was just as much of a challenge. However, thanks to a ton of innovation and polish, Kitchen's game changed the way the industry thought about licensed titles.

With a slew of publishers creating anything but stellar titles based off of licenses for years, hardcore gamers were petrified at the thought of an inferior Simpsons game, but that's definitely what was expected considering the climate at the time. Thanks to awful games based on films and TV shows such as *Back to the Future*, *Knight Rider*, *Friday the 13th* and countless more, why would the first Simpsons game be any good? If there were chat rooms back then, they would have been flooded with gamers who had hopes of what the game could be, but there would be plenty of trolls as well, confident that the game would have "mediocre" written all over it. Over 25 years after its release, Kitchen's *Bart vs. the Space Mutants* still stands as a polarizing game that did anything but stink. From the game's score, fun platforming action and visuals that captured the essence of the animated sitcom wonderfully, *Bart vs. the Space*

Mutants is a great example of how to do a license right.

Although it appears to be a straight-ahead 2D side-scroller by today's standards, the game's difficulty makes it anything but a kids' game or a retro cliché. Easily one of the most challenging games on the Nintendo Entertainment System and later the Sega Master System, Sega Genesis and Game Gear, there are plenty of gamers out there that appreciated the game's design, but couldn't get past the first level. As a result, one of the most iconic lines in the Simpsons' history, "Eat My Shorts," got glued in players' heads. Why you ask? That was the sound bite that played every time you lost a life in *Bart vs. the Space Mutants.* And if you didn't play smart, it happened a lot. Kitchen, by his own admission, knew this would appeal to challenge hungry gamers and those looking for something different. "I thought the majority of the game played very well, challenging but not in an unfair way," Kitchen said. "There may have been levels later in the game which could have used more tuning, but failed to get it due to schedule."

Bart vs. the Space Mutants is the first video game based on *The Simpsons* and to this day, it's still one of the most difficult games in the franchise.

In spite of its difficulty, *Bart vs. the Space Mutants* has remained a cult classic for over two decades for a myriad of reasons. From the opening theme song, it entrenches you in the atmosphere of the series. Once you actually start playing, however, it's anything but a funny, silly experience. As a matter of fact, the first level of *Bart vs. the Space Mutants* is iconic. If you're a 30-something, you've definitely played it.

Controlling the Simpson's resident brat, Bart, throughout the course of the game, you have an easy goal in the beginning. Spray paint anything that's purple, so the Space Mutants can't use it to build their "ultimate weapon." Almost like an ode to the classic sci-fi flicks and one of the best, *They Live*, Bart is the only person who knows aliens have invaded and can use his trusty x-ray specs to see who they are. Like the *Super Mario* series, Bart can jump on his enemies' heads to get rid of them. That instant familiarity gives the game quick appeal to both casual and hardcore gamers.

At the same time, *Bart vs. the Space Mutants* is more than your standard platformer. Like many of Kitchen's games, it requires you to think and encapsulates the player. Along your journey, Bart is able to acquire tools such as cherry bombs, magnets and bottle rockets to get past obstacles, tougher enemies and advance the story. Over the course of the first level, you'll even be able to make a prank phone call to Moe's Tavern—a scene that millions of gamers experienced countless times in the '90s. Things like this are the reason why so many people wanted to play the game when it was originally released and why it's still enjoyable to play today. Regardless of the difficulty of the level and many gamers' inability to advance, it set the tone for the rest of the game and absolutely captured the flavor of the hit TV show in ways that few licensed games could back then. Because of this, to say that the first Simpsons video game was just trying to cash in on the series' popularity couldn't be farther from the truth. If anything, it was a risk as well, especially for someone like Kitchen, who was a legend, thanks to his work on the Atari 2600 and Commodore 64 a decade before anyone ever heard of The Simpsons.

"It was very exciting, however, it wasn't really at the height of *The Simpsons'* popularity," Kitchen said. "I got a call from Greg

Fischbach of Acclaim a couple of days before the first episode aired, asking me to take a look at the property with an eye toward building a game. The series had begun as a short on the Tracy Ullman show, but it hadn't yet debuted as its own series. Even after the first few episodes, there was such a strong backlash to the off-color content that it was unclear how big the series would ultimately become. In any event, I did love working on the property. It was an honor to meet the Executive Producer, James L. Brooks and Simpson's creator, Matt Groening during the concept phase. I am forever thankful to Greg Fischbach for having the faith in us to include us in the project."

With the show garnering headlines early, the development of *Bart vs. the Space Mutants* was a constant race against the clock. While it wasn't on the same impossible schedule that several other games in this book were, Kitchen said that the small development time frame negatively impacted the game. That fact alone makes you wonder what else could have been added had Kitchen and his team had more time. "The biggest hurdle was schedule. There was a real desire on Acclaim's part to ship the game before Christmas, though they recognized that it was almost impossible. Despite a humungous effort by our team, we missed that date," Kitchen said. "I believe the game shipped in early January. Unfortunately, building a game against a fixed ship date is never a good idea so I do believe the game's quality suffered a bit because of compromises we made in an attempt to get it done in record time."

With time a huge issue, Kitchen knew he needed help to ensure the game maintained the feel of the show in terms of writing. It had to be funny. It had to be rambunctious. It had to be special. Anyone who's played the game knows that's exactly what it got and from there, the game began to take shape and created many of the game's most memorable moments. "When the project started, I immediately hired a good friend of mine from college, Barry Marx, who had a creative writing degree from Columbia University," Kitchen said. "Barry was one of the best creative minds I've ever worked with. He and I came up with the X-ray glasses when we both remembered the crazy advertisements on the last page of comic books. There was always the ad for the glasses which could see through the girls' clothes at school. We knew that was

something Bart would love. Barry Marx went on to write for the TV series *Sabrina the Teenage Witch* for a short period of time, achieving a lifelong dream of writing for television/film. Unfortunately, very shortly after getting the *Sabrina* gig, he died of a heart attack at the age of 41. Rest in Peace, Barry."

With a great look and feel and the type of writing that instantly connected fans to the series, *Bart vs. the Space Mutants* was able to create its own space to thrive, regardless of some of the sacrifices Kitchen and his team had to make to get the game out. Never, at any time during gameplay, do you feel like you're lost and there's nothing to do. Spanning five different levels, *Bart vs. the Space Mutants* got even more difficult as the game wore on. Whether you were looking for hats, balloons, exit signs, or even nuclear rods, the game was tough. Employing everything a good platformer game should, from jumping, dodging enemies and attacking, it's drenched in traditional gameplay that any gamer can appreciate. Jump, dodge, collect and think. As a result, it's a game that's still extremely playable and easy to digest today. However, by using Bart's skateboard, the game became so much different than your usual adventure game. That addition of speed channeled the show's opening segment wonderfully and again, connected hardcore fans to the game in a way no other licensed game had done before. The mini-games at the end of each stage also required quick reflexes and forced you to use a different part of your gaming skills to succeed. From kicking bowling balls at your bully, Nelson, to opening the Dizzy Doors in the Fun House, *Bart vs. the Space Mutants* had spicy gameplay from start to finish. As a result, it's far from your usual platformer on the Nintendo Entertainment System. It's even got a few secrets.

Without the use of the game's x-ray glasses, it's impossible to know who the aliens are.

"I programmed two easter eggs into the game," Kitchen said. "Somewhere on Level one, in the first 10 screens or so, you come to storefronts where you can jump up the front of the building onto window sills. If you get up to the furthest window sill to the left of the building and make a long leap to the left into open space you will land on an invisible ledge. Pulling straight down while standing on the invisible ledge triggers the appearance of letters which represent initials of my family members. If you go to the left at that point previous alien creatures you passed have also turned into initials of [my] family members."

Developed by Kitchen's Imagineering, the in-house studio of Absolute Entertainment, Kitchen and his team often worked for other publishers the likes of Acclaim (who published *Bart vs. the Space Mutants*), Atari and Activision. Although the show wasn't well

known at the start of development, the Simpsons would later become one of the hottest intellectual properties in the world at the time. Obviously, unlike the beginning of the project, by the end of the development process, the game had a ton of hype behind it. For Kitchen to have the opportunity to develop the first Simpsons game was not only an honor but one that would also help Imagineering and Absolute land other big licenses in the future such as *Home Alone*, *Flight of the Intruder*, *Family Feud*, *Rocky and Bullwinkle* and *Jeopardy*. In spite of their continued success afterward, however, *Bart vs. the Space Mutants* was one of the games that first put the developer on the map.

"[We were] Very, very relieved. Given the visibility of the property, it may have been the most stressful project I've ever worked on. I believe the game was a strong commercial success," Kitchen said. "Here's a quote from *Variety Magazine*, Nov. 1991: 'And the success of games like Acclaim Entertainment's *Simpsons* title, which has sold over 1 million units at about $40 each, is proof to Hollywood that makers of quality video games—which appeal largely to boys age 8 to 15—can be partners in profit.'"

Because of its sales alone, the legacy of *Bart vs. the Space Mutants* is an intriguing one. A million units sold is a milestone only special games ever achieve, but then add in the effect *The Simpsons* has had on pop culture and it's easy to say it was one of the most successful licensed games on the Nintendo Entertainment System. The same can be said for the versions of the game that were later ported on (without Kitchen and his team). While later games based on the Simpsons franchise have gotten awful to amazing reviews (*Simpsons: Hit and Run* and *Simpsons Wrestling* being two prime two examples of the polarizing effect the series has had on the video game medium), the financial and critical acclaim *Bart vs. the Space Mutants* garnered absolutely played a role in the continued success of the franchise and are a model that all developers should follow when taking the reigns of something as beloved as *The Simpsons*.

"I'm glad to hear that the game is still well liked," Kitchen said. "I think it is a fun and entertaining platform game, with familiar gameplay. That combined with the strong integration of the Simpson's characters and environment makes for an overall

enjoyable gameplay experience. As every Simpsons' game was creatively different and the platforms changed dramatically over time, allowing for much-improved graphics, animation and audio, it's hard to compare individual titles. Hopefully, we set a good bar in terms of commercial success.

"Prior to *Bart vs. the Space Mutants*, there was somewhat of a stigma in the video game industry regarding the licensing of TV/movie properties, caused by a perception [whether true or not] of bad games and commercial failures, starting with the infamous Atari *ET* game. I would like to think that our Simpsons game reversed that trend. I hope that *Bart vs. the Space Mutants* is remembered as the first [or one of the first] commercially and critically successful Hollywood-licensed video games."

Jane Jensen, *Gabriel Knight: Sins of the Fathers*

Voodoo Chile

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What happens when a New Orleans bookstore owner gets so involved in a police investigation that he finds out he comes from a long line of Schattenjägers? Bless you. Wait, no one sneezed. A Schattenjäger is a "Shadow Hunter," a person with spiritual powers who uses their abilities to investigate and research paranormal activities. And those skills are exactly what Gabriel Knight needs if he's ever going to get to the bottom of a creepy case that proves point-and-click games didn't need to be funny or gimmicky to work. One of the best point-and-click adventures in Sierra's massive library, Jane Jensen's *Gabriel Knight: Sins of the Fathers* is a mature horror/detective adventure that redefined the genre. Simply put, the game has a bevy of detail and polish, from not only a gameplay point of view, but the phenomenally-written story and voice acting cast as well. From the first second you fire the game up, there's this wonderful duality between the present and the past—what Knight is and what his ancestors were. How these two intersect play a key role in the game's mystery/thriller plot. Aided by wonderful music from composer and producer Robert Holmes and animation in the vein of games like *Flashback* and *Out of This World* and even the Rankin/Bass *Lord of the Rings* animated films and it's easily one of the most iconic and unique point-and-click games ever made.

But because of the mature and eclectic story and the point-and-click nature of the game, there's a huge chance that you've never played *Gabriel Knight: Sins of the Fathers*. Being a 20-year-old PC game, why would most of you? You're too busy playing *Overwatch* or *Grand Theft Auto*. By today's standards, *Gabriel Knight: Sins of the Fathers* lacks the visual sex appeal of today's games, but its story still holds up remarkably well and is definitely steamy. Simply put, it's just as deep as your favorite novel and on-par with any epic Square RPG or film. For that reason, not playing it would be a serious life mistake

and one you can still atone for. Powered by an awesome original character, beautiful women and a world that's equally refined and mysterious as well and it's a game that's difficult to put down.

Although the music and supernatural feel cast a scary tone at times, Knight's quick wit and sense of humor make this so much more than a cliché. One that it definitely could have been. Let's be fair, a bookstore owner or a writer being a private detective has been done a million times in film and theater. However, Jenson's character never feels flat. He's definitely got a soul and the themes of the game are nothing like what you'd see on *Murder She Wrote*. At times, this game feels so grounded in reality that you'll have to keep the lights on. When the plot starts to take clearer shape and you see some of the creepier parts of New Orleans, including an underground sanctuary where human sacrifices are made, it's hard not to feel.

"I think it has a nice blend of humor and horror," Jensen said. "Gabriel is a wiseass and there's a lot of amusing dialog, but some genuinely chilling moments and surprises too." Knight's charisma is one of the reasons why the game is so infectiously addictive. He's everything anyone could ever want to be, smart, good-looking and at the wrong place at the exact right time. Of German and Southern descent, he's exotic, but he's definitely accessible to the average gamer and is a true ladykiller in every sense of the word.

At the same time, he's got something unique about him that makes him someone you'll want to learn more about and follow around New Orleans for answers. Eager to follow the police to use a string of voodoo murders as the basis of a book, the struggling author/ rare bookstore owner suddenly finds himself in the middle of something so much bigger. With his trusty and equally as witty, but no-nonsense assistant Grace Nakimura by his side helping with the research, you've got more than enough to create a wild adventure with a ton of layers. The relationship between Knight and Nakimura is also one of the coolest parts of the game that plays an even bigger role later in the series. Although there's definite chemistry, seeing them deny their feelings and play verbal joust are some of the most memorable parts of the game.

However, the introduction of Malia Gedde, a beautiful woman

whose connection to the Voodoo murders becomes more apparent as the story rolls on, is the most important of Knight's relationships in *Sins of the Fathers*. It is also here where Knight is at the top of his ladykiller game. "Excuse me, but … your eyes are really distracting," Knight says to Gede at one point in the game. "I don't think I've ever seen a color quite like that brownish-gold. It's so deep and rich. Man, if I could bottle that, I'd make a fortune."

Jane Jensen was able to bring the narrative style of a novel to the point-and-click genre in *Gabriel Knight: Sins of the Fathers*.

Knight's time with the sultry Gedde is also where the paranormal manifests itself the most and Gabriel learns of his family's past. It seems that history is repeating itself and Knight will have to make a decision that either makes him different from his family or one in the same. The decisions you make over the course of the adventure induce multiple endings, which are another reason to play the game. The game's ability to draw you in has everything to do with the fact that its dripping from Jensen's life force. It's an absolute passion project and one that she always wanted to make. Unfolding

before you like a novel, it was obvious early on that Jensen was a different type of developer. "I wanted to do a paranormal mystery series because I've always been fascinated by ghosts and horror novels and all kinds of paranormal," Jensen said. "I grew up reading Anne Rice and Stephen King. I originally thought about doing a main character who was a paranormal research professor, but I wanted to set the first game in New Orleans and as the story progressed I needed a hero who was down on his luck, and also one troubled by strange nightmares, so Gabriel became the owner of a used book shop that no one frequented and a pulp horror writer [due to his dreams]."

And while there are love interests, fun and intriguing characters and plenty of environments as well a deep and intense plot, *Gabriel Knight: Sins of the Fathers* is, at its heart, an old-school crime tale. Advancing the story requires you to pay attention to clues and in a way, become one with the drama. This is not a game that you can simply waddle through. You've got to pay attention and be invested. "Gabriel has to convince his friend Mosely, a cop, to reopen the Voodoo murders case. To do that you need to collect evidence and clues from various scenes in the games and interviews with suspects, etc. I thought that turned out to be a nice use of clues and inventory," Jensen said. "It made the reason for finding and collecting clues very concrete and useful in propelling the storyline."

Originally released in 1993, *Gabriel Knight: Sins of the Fathers* also boasts a wonderful voice-acting cast, even by today's standards. With *Rocky Horror Picture Show* and *IT* star Tim Curry as Gabriel, Luke Skywalker and Joker himself Mark Hamill as Mosely, the always beautiful and uniquely-voiced Leah Remini (*King of Queens*) as Grace and *Star Trek* veteran Michael Dorn as Dr. John, a proprietor of a voodoo museum of sorts in central New Orleans, the game almost has more star power than it needs. Nevertheless, at times you'll often forget that these great voices are being lent to the game because Jenson's story is so engaging. Regardless having this certainly doesn't hurt the game either.

From a gameplay point of view as well, *Gabriel Knight: Sins of the Fathers* is anything but your typical point-and-click adventure. The

plot development of the game often feels like a book. Over the course of the story, the layers of the murder and the depth of the characters shine through. The slow burn is there. While you'll often have to complete certain tasks to further the plot, the bountiful amount of small side quests add more playability and make the game feel like anything but a linear adventure. It also helps that over the span of the 10 days the game takes place you'll travel all over New Orleans. You'll get a great taste of the city from the shops, cemeteries, parks and things like tarot card readers. You'll also get to travel to Germany and Africa at other points in the game to learn more about your past. For a game almost 25 years old, it just screams attention to detail and love. Jensen and her team put something special into this. At times, it feels like you're getting a history lesson on everything New Orleans and supernatural. "Everyone on the team was excited about the game," Jensen said. "We knew we were doing something fresh and new for Sierra, a horror adventure game and so it was very motivating. We worked long hours, but the team was very tight."

But this isn't a game you'll remember for just for its accuracy to the New Orleans cityscape. Again, it's all about the history of Knight, his family and his future. As the story goes on, Knight realizes that he, just like New Orleans, is so much more than it appears to be. No one is who they claim to be, including himself. A mystery divided into smaller ones and Knight's own self-actualizations, *Gabriel Knight: Sins of the Fathers* is soaked in character and plot depth. Even when you put the game down, the story will stick with you. You'll wonder what the answers to puzzles are. You'll want to get back into Knight's world and help him get to the bottom of the Voodoo murders and find out about his past. "I'd just taken a screenplay writing class, so I worked some new literary devices into the story, particularly mirroring, that I had never used before," Jensen said. "For example, Gabriel's current day story is mirroring his ancestors, the modern day Hounfour mirrors the ancient one, etc. So that's where all that came from."

Although the game would go on to sell over 300K copies and is often considered to be a part of Sierra's legacy at the helm of developing some of the most iconic point-and-click games of all-time, development wasn't a straight-ahead process. However,

according to Jensen, all of the trials and tribulations were worth it when the final product was released. "I consider it a golden era now, though at the time I didn't know that. What made Sierra a great environment was [Sierra founder] Ken Williams' commitment to letting designers have creative freedom," Jensen said. "That's really rare now. And it was a very casual work environment, being in the mountains. Nice people, talented people.

Although it doesn't feature the original voice cast, the 20th anniversary edition of *Gabriel Knight: Sins of the Fathers* is a beautiful-looking game that keeps the essence of the original.

"We did have a few hiccups [during development]. One huge one was that something happened to the voice-over audio," Jensen said. "Somehow it got down sampled badly or something like that. It was awful because we had such incredible actors who did the voiceovers. I recall the audio team working round the clock for weeks trying to salvage it. Also, during development, the engine got

an upgrade and that broke everything for a while and it was super tense. But overall, the project went smoothly. I remember standing with the team in the warehouse seeing the first boxes come off the line and being very proud."

Gabriel Knight: Sins of the Fathers is also an important game to Jensen for several reasons, one of which is incredibly personal. The game's producer and composer, Robert Holmes, is her husband. "We were dating at the time. It was great to be next to each other all day and, as a producer, he was super supportive and helpful," Jensen said. "I loved having him as producer. When he left Sierra at the start of *GK2*, I wasn't happy about it! He moved on to take a great opportunity to work on a digital project with Sting."

Garnering a plethora of critical acclaim, *Sins of the Fathers* spawned two sequels and a 20th anniversary remaster in 2014 that brought the game to mobile devices as well. Although it doesn't feature any of the original one-of-a-kind voice talent, it's still a great way to experience the game today, with improvements to the visuals and Holmes' top-notch soundtrack. The original *Sins of the Fathers* also played a role in Jensen's development as a creator and author. With over 20 book credits to her name—and pen name, Eli Easton—and her involvement in the *Gabriel Knight*, *King's Quest* and *Moebius* franchises, she undoubtedly belongs among the top female developers of all-time and one of the most prominent writers in the history of video games. "Prior to *GK1*, I'd only been a co-designer and not a creative director on projects," Jensen said. "It takes confidence to be able to stand up for what you think the game should be. But also, you need to allow the many talents on the team to have the freedom to shine without too much micromanaging."

And although still largely a cult game, it's one that proves the medium is so much more than Italian plumbers, blue-haired hedgehogs and buster swords. And while it's not a million-seller and has no movies based on it, it should. Simply put, *Gabriel Knight: Sins of the Fathers* is a true classic thanks to its attention to the detail of New Orleans, wide-reaching plot, top-notch score and a voice-cast that brings the characters to life in a way that no other game had done prior. "I hope it's remembered as one of the first effective horror games," Jensen said. "And one that shows that writing can

be just as good in a computer game as in a novel."

Ron Gilbert, David Fox and Gary Winnick, *Maniac Mansion*

Point-and-Click's Original SCUMM-Bags

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When classic games that redefined the industry get listed online, Ron Gilbert, Gary Winnick, Carl Mey and David Fox's *Maniac Mansion* is usually one of the titles at the top of the list. While it's a quality game that's stood the test of time and will make you think and laugh, thanks to a script that borrows from B-horror and sci-fi flicks of the 80s, it's the first point-and-click adventure game ever and the first to coin the term "cut-scene." If that's not enough to cement its importance to you, just stop reading and pick up a coloring book. Taking the successful text-based adventure game formula created by Sierra and improving upon it to appeal to a wider audience, Gilbert, Fox, Mey and Winnick changed the industry forever and made themselves and LucasArts legends in the process.

Developing *Maniac Mansion* wasn't a straight ahead process, however. A lengthy affair that almost cost the developers their jobs, it was never an easy ride. While LucasArts gave their developers freedom to create, they still had to produce. Considering the game took over two years to develop, Gilbert and the rest of the team were always in a race against the clock to meet expectations. At the same time, it was a situation where the team was a tight-knit bunch that wanted to create something different. Created by Gilbert and Winnick and also programmed by Mey (on the DOS) and Fox, all four brought something special to the table. Mey's credits today include *Cruis'n USA* and *Road Rash*, while Fox is the creator of *Zak McKracken and the Alien Mindbenders* and is a designer on Gilbert and Winnick's newest point-and-click adventure, *Thimbleweed Park*. But regardless of the team-wide passion and skill, Winnick and Gilbert conceived the original idea for the game. Their bond as

friends and like minds fueled the process for what ultimately is a pop culture–infused fun ride.

"Ron and I got to know each other because we had a lot of common interests when it came to movies and shared a similar 'warped' sense of humor," Winnick said. "Neither of us had designed/led a project, but we realized we could probably put together a compelling game pitch given our respective skills. In those days there was no real project submission and approval process, you just started working on something and showed it to the group when you felt ready. We both enjoyed bad 'B' movies, particularly the clichés, and decided we'd like to specifically do a parody of bad horror movies. You know, the type of story where a group of teenagers enters a creepy looking haunted house and immediately split up."

Every element of the game, from the story, to the brand new engine created for it, were made with passion, but that, of course, takes time. Originally beginning as a pen and paper game, Winnick and Gilbert loved the idea of having multiple characters solve problems in different ways and having multiple endings, but in 1985 this wasn't the norm. Because of this, the game had to be designed from the ground up and while in the end, it turned out similarly to a Drake song, the road during development was never easy. "When we initially decided on multiple playable characters along with multiple endings, we didn't realize what we had gotten ourselves into until it was really too late to switch course," Winnick said. "The overall complexity was more than we had imagined."

Maniac Mansion **was a hit on every console it was released on, including the Nintendo Entertainment System.**

As a result, the game's development was never easy. With limited resources, the team forged ahead and found ways to get things

done. "That complexity meant way more testing was needed to make sure you couldn't end up in an unwinnable combination," Fox said. "And considering we only had one dedicated bug tester, that was likely to cause players to have to start over again after getting stuck."

But like anything great, for all of the hard work and sacrifices, in the end, it was all worth it. *Maniac Mansion* looks, sounds and feels seamless. The way the game goes from gameplay to cut-scene and the way your characters manage items and commands were groundbreaking at the time and still works well today. Before *Maniac Mansion*, text-based adventure games were guesswork. If you didn't know what to do at a certain point in the game, you were stuck forever. Remember, this is over a decade before the internet was available in homes around the world. The next best thing to looking for a walkthrough was to ask a friend. If they didn't know, you had to keep trying, or even worse, stop playing.

Maniac Mansion was important for several other reasons, as well, as it not only made adventure games of the time more like films, with better visuals and storytelling devices, it made gameplay more transparent and forgiving, making the genre accessible to players who may have never played them otherwise. That type of creative freedom came with being a part of the LucasArts brand. As a matter of fact, the "mansion" in *Maniac Mansion* is even modeled after the main ranch house at Skywalker Ranch.

"That whole era at Lucasfilm Games brings up fond memories for me," Fox said. "Working with Ron and Gary and the other brilliantly creative people there was one of the best experiences of my life. That's why when Ron invited me to again work with him and Gary on *Thimbleweed Park*, I jumped at the chance. I was a bit concerned we wouldn't be able to recapture the magical synergy we had back then, but I had no reason to be. It's been just as fun as working on *Maniac Mansion* and the other games we did back in the 1980s and early 90s."

Although the seeds were in place for *Maniac Mansion* to become something special, thanks to LucasArts' dedication to unique ideas and the ability of the team, the game was far from a conventional title in development. With profanity in the dialogue and a rebel

sense of humor, Gilbert, Fox, Mey and Winnick had to fight to keep much of their angst in the game as possible. Although it wasn't Gilbert, Fox and Winnick's first game, they felt it was their first opportunity to show their bosses at LucasArts what they were capable of. *Maniac Mansion* needed to be different. It needed to be like them.

Away from the tones and aesthetics in the game, the way *Maniac Mansion* found what would become its signature gameplay blend is the way a great fighter or musician develops his style—they took from the best and made themselves ever better. Although there were similar story-based and text-based games available at that time from Sierra, particularly the *King's Quest* series, the team found a way to improve upon the formula and take it to an entirely different level. "I think *King's Quest* was one of the closest similar games to what we envisioned at the time, so it was natural we'd look at it both for the example of what we liked as well as what we'd like to improve on," Winnick said.

"I found the Sierra style of graphic adventures to be really frustrating," Fox said. "I didn't like being hit with what felt like a continuous barrage of meaningless deaths, seemingly put there by the designers to prolong gameplay or out of an 'I'll get you' attitude. It wasn't the deaths by themselves, but the fact that I died for doing things I could easily do in real life without dying, like picking up a piece of broken glass."

On top of the innovations in gameplay, *Maniac Mansion* went away from the medieval setting and instead made the story far more approachable for the casual gamer. Draped in references to sci-fi films and '80s horror, *Maniac Mansion*'s story felt more like a film than an epic "quest." After a "sentient meteor" crashes near a mansion, it takes over the mansion owner Dr. Fred Edison's mind and makes him use people's brains for experiments. His son, Ed, and wife, Edna are also on the weird side as well. There are two "tentacles" living in the house too. Simply put, the mansion is definitely a place where anything can happen. After Dave's girlfriend, Sandy Pantz, is kidnapped by the doctor, Dave and his friends must go inside a save her. Using items around the house to open doors and solve puzzles, the game is essentially a sci-fi/horror

detective tale, with plenty of humor. At times, however, it feels like something much bigger than a '80s video game, even 30 years later.

"I think *Maniac Mansion* was one of the first adventure games that made you feel like you were actually playing an interactive cartoon or movie based on its characters and staging," Winnick said. "I really like the characters, particularly the Edison family. They were a comedy amalgam of creepy horror film families, with a some EC comics influence thrown in."

With 15 different commands and uniqueness to each of the characters, there are a plethora of ways to solve each puzzle as well. Loaded with secrets throughout, there is no way you'll see everything on your first playthrough. From putting hamsters in microwaves and landing a publishing or recording deal, there are way too many things to see and do for a game released in 1985. Revolutionary isn't the word in the end for how chock full of content, ideas and fun this game is. This not only makes the game replayable well after you finish it, it made for a hell of a development cycle. Never done before, Fox, Mey, Gilbert and Winnick found themselves in uncharted territory and no one could help because they created the very idea of the platform.

Looking back, Fox knew the game was different but didn't expect to see a genre or a legacy created as a result of it. "At the time we were creating these games, we figured they'd have a lifespan of two to three years," Fox said. "Same for *Zak McKracken*, *Indiana Jones and the Last Crusade*. And since there was no direct feedback from the fans then, I pretty much figured they'd be lost to time. It wasn't until 2004 when I went to a conference in Norway and someone showed me *Zak* running on his Nokia phone (using a C64 emulator) that I realized how wrong we were."

In the end, the game's innovation in defining the point-and-click genre was far more intriguing than the fun story. The creation of the game's engine, Script Creation Utility for *Maniac Mansion*, aka SCUMM—and later on the Nintendo Entertainment System, NES SCUMM—was used on 11 future Lucasarts games, from *Zak McKracken and the Alien Mindbenders* and *Indiana Jones and the Last Crusade: The Graphic Adventure* to *Loom* and the game's sequel, *Day of the Tentacle* and made the point-and-click interface one that has

still endured today. Without Fox, Gilbert and Winnick's work, it's easy to say that landmark titles from Telltale Games and countless others wouldn't exist today. That level of diversity came from Gilbert's ability to reinvent the wheel. If not for that, *Maniac Mansion* might not have existed in the same form. That may even mean that point-and-click games today don't exist. A scary thought.

"I started programming the game in 6502 assembly language, then a few months in realized that was crazy stupid," Gilbert said. "Chip Morningstar [another programmer at Lucasfilm] suggested I write a scripting language. I then spent several months creating SCUMM when we should have been working on the game itself."

Going on to play a role in other instantly recognizable and beloved titles in *The Secret of Monkey Island* and *Backyard Sports* series, as well as the fun *Full Throttle*, *Deathspank*, *Scurvy Scallywags* and now *Thimbleweed Park* games, Gilbert is far from a one-hit wonder and today, like the rest of the team of *Maniac Mansion,* is considered a pioneer and legend. His time with *Maniac Mansion* wasn't about being legendary though. At the time, it was just about making a cool game—and keeping his job. "I almost got fired for taking so long," Gilbert said. "I think that was why David was brought in as 'the adult.'"

Regardless of how the game's legacy changed upon release, Gilbert and the rest of the team have their own ways they'd like *Maniac Mansion* to be remembered. "I think how the characters and puzzles were woven together into the story [are memorable]," Winnick said. "Also I think the background art was fairly groundbreaking at the time. Ron wrote a utility that let me crunch down the character sets to maintain the overall charm of what in those days were fairly elaborate scrolling backgrounds. I think it offered a unique experience bringing together elements of storytelling, puzzle solving, and interface, along with a sense of humor that has stood the test of time."

"There were a lot of things to explore that weren't even needed as part of completing the game. Lots of Easter eggs, wacky things that could happen," Fox said. "Because of the world's size and how we were able to anticipate so many things the players would try, it made the world feel real. If a player tried something outlandish and

there was an actual response or result, it rewarded them for being clever rather than causing the sense of place to fall apart."

As for Gilbert, *Maniac Mansion* was a way for him to form life-long friendships and help create a genre, the game also helped him to set a standard to follow the rest of his career. "I was 21. I worked all the time," Gilbert said. "I had nothing better to do. Come to think of it, not much has changed in 30 years."

Clayton Kauzlaric, *Voodoo Vince*

Pain for Pleasure

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The year 2003 was a busy time if you were an Xbox owner. Games the likes of *Prince of Persia: Sands of Time, Crimson Skies: High Road to Revenge, Star Wars: Knights of the Old Republic*, as well as *Brute Force, Enter the Matrix* and *Dead or Alive: Extreme Volleyball* hit store shelves and killed your spare time. From battles with lightsabers, dog fights, busty women playing in the sand and the ability to stop time, these games stole many teenagers' imaginations and created memories that still resonate for most of them. The year 2003 was also when industry veteran Clayton Kauzlaric's *Voodoo Vince*, developed by Beep Industries and published by Microsoft Game Studios, was released. A charming and endearing platformer, *Voodoo Vince* has some of the most engaging and enjoyable gameplay mechanics in an adventure title, especially surprising since the Xbox did not have many in that genre. It also has been lost in obscurity for years.

The story is easy to understand, but is far from your typical goomba-smashing or hedgehog-spinning romp many gamers have come to expect from an adventure or platform game. Controlling Vince, a magical, one-eyed Voodoo doll through the French Quarter of New Orleans, players must find clues in order to save their owner, Madam Charmaine, from the game's main baddie, Kosmo the Inscrutable and his henchmen, Jeb and Fingers. Along the way, you'll meet a wild cast of characters and fight enemies never before seen in an adventure game, from a pair of Gas Pumps to a dinosaur head. You'll also get help from an intriguing group of personalities like Skeleton Jazz musician and a self-important scientist—that happens to be a turtle. And while the enemies and cohorts are fun to interact with, Vince's personality is always a driving force in the uniqueness of the game. However, Vince's character was one that continually changed throughout development.

"At first, I wanted Vince to be completely non-verbal. I love old silent movies and at first, I thought a personality like Buster Keaton's would be a good guide for Vince. Nobody could mug at the camera like Buster," Kauzlaric said. That changed a number of ways after the design started taking shape. I was reluctant to make him a speaking character, but it became clear that Vince needed to communicate with players. It also seemed like it would be fun to have some banter between Vince, Madam Charmaine and our villain, Kosmo. Our first pass at a speaking Vince had a sort of high, raspy voice. It was a little like Popeye on helium. It worked for some of the dialog in the game, but it wasn't something you could listen to for hours.

"That led to his final incarnation, voiced by Seattle-area actor Ken Boynton. The snarky, slightly grumpy Vince took a lot of cues from the personality of the team working on the game. The team was close but also loved to tease and make fun of each other, sometimes in very creative ways. The purest form of this was really strong in our art director, Gary Hanna. Gary's dark humor and sarcasm definitely had some impact on shaping Vince."

And while the story itself is a fun one and features music, some written by Kauzlaric himself, it's the gameplay elements that truly set *Voodoo Vince* apart. In order to defeat many of the game's bosses, Vince has to hurt himself. Case in point—in order to beat Reggie and Primo, those pesky pumps of gas, he has to set himself on fire and then jump into a puddle of gas near the pumps. But the game isn't defined by its combat engine either. It's about the adventure. On your way to bosses, you'll be able to do everything from fly a plane to zip-line down a clothesline. Make no mistake, this is not your typical video game adventure. For a system like the Xbox, which was clearly defined by the *Halo* series and games from Sega, a platformer the likes of *Voodoo Vince* satisfied a clear niche. Its creation however was never fueled to fill that hole in the system's game library. Instead it was just a light bulb moment that manifested itself into something truly special.

"*Voodoo Vince* was created when I was sitting around doodling on a notepad one evening. I was just doing random drawings of whatever came to mind and ended up with a little drawing of a

lopsided Voodoo doll with one big eye," Kauzlaric said. "I sort of liked his cute-but-ugly vibe and started thinking about a game with him as the main character. I jotted down 'Vince The Voodoo Doll— A game where getting hurt = good.' That was pretty much the nucleus of the whole game and it never really deviated from that central idea."

Just like any great platformer, the world of *Voodoo Vince* took on a life of its own. The lighting used in the alleyways of the streets and the small graphical touches (the mirror in the game's first level) make you feel like you're somewhere special. The fact that Vince is tiny and dwarfed by something the likes of a houseplant adds a level of wonderment to the adventure as well. You just know he's not safe and in order to advance, you'll need quick reflexes and some smarts. That, in itself, gives it the heart of a wonderful platformer. The game's score echoes the multi-dimensional gameplay approach as well. Thanks to the jazzy New Orleans tunes that make you feel like you're actually there, Vince has everything a quality platformer should.

Vince is tiny and the way he interacts with his surroundings makes *Voodoo Vince* mega enjoyable.

Clayton Kauzlaric has worked with some of the best in the industry, but *Voodoo Vince* still stands as a special achievement for him.

"One of the pillars that shaped the game is that the world and

locations were considered a character every bit as much as Vince," Kauzlaric said. "We always talked about the game's environments as a place we would want to be in person. A big chunk of our crew went to New Orleans to research the visual foundation of the game and just soak up the amazing atmosphere of that place. That, combined with Steve Kirk's unbelievable score, created a spell that still works after all these years. I do a lot of fretting and hand-wringing now that I'm working on the remastered version. Some things hold up after thirteen years better than others, but Steve's music is immortal." The well-rounded appeal of *Voodoo Vince* is a byproduct of Kauzlaric's game development pedigree. In the business since 1992, Kauzlaric was an artist on two beautiful games, *Pitfall: The Mayan Adventure* and the Squaresoft classic, *Secret of Evermore*. He also worked extensively with industry legends Ron Gilbert and Chris Taylor on *Total Annihilation* and its expansion pack, *Total Annihilation: The Core Contingency* and was involved in the next game in the series before he migrated to Beep and began work on *Voodoo Vince*. However, once on his own with Beep, the development process for *Voodoo Vince* was a bit different than his prior experiences.

"We spent so long pitching the concept before the game was signed, we got a lot of planning done beforehand," Kauzlaric said. "Before we even signed the game, we had every piece of art, every task, and every feature spelled out on paper. Microsoft was still relatively new to publishing games and Beep was something of an experiment. We had to provide a prototype, then a vertical slice to get through a green light stage. Then we had very structured milestones compared to some of their previous projects. That's common now, but I think it was a new process at the time. We consistently nailed our milestones. We would have done that no matter what, but there was an extra undercurrent of worry. We were told from the beginning that the game would probably get cut if we slipped up and we wanted to make sure we were always on time and completely buttoned up. We were, but the production line feeling wasn't always great for gameplay innovation."

With strict deadlines during development, Kauzlaric and his team always had their backs up against the wall. Wanting to use the game as a way to springboard Beep into new opportunities proved

difficult as well. "That possibility (of failure) is always hanging over you when you run a small company," Kauzlaric said. "Microsoft made it clear that we really couldn't deviate from our schedule and budget, so we were pretty careful with our planning and staffing. They were also publishing two other character platformers, both of which were cut from the portfolio while Vince was in production. We did our best to be an ideal developer. Ironically, we did end up slipping our date a little, but that was mostly so we'd have more time for Microsoft certification and manufacturing."

The experience, however, was ultimately one that taught Kauzlaric quite a bit. Playing a role in future games such as the Xbox 360 and PlayStation 3 cult classic *Deathspank* and the under-appreciated iOS and Android puzzler *Scurvy Scallywags*, both made alongside the iconic Ron Gilbert, Kauzlaric continues to make intriguing games that are worth playing. *Voodoo Vince* played a massive role in the future of his career however and is still a special game to him.

"I learned a ton as a game designer and about what it takes to run a small development studio," Kauzlaric said. "My biggest takeaway was about the power of modular design that evolves over time. I put a ton of one-off things in the game and never used them again. That was dumb. I think the game could have had a lot more quality gameplay if I brought back jumping on the spring, riding the rat or any number of puzzle mechanics. Those should have progressed over time to flesh out the middle and later levels of the game, but it was my first 3D platformer."

Once the game was released, Kauzlaric went through a plethora of emotions. Make no mistake, *Voodoo Vince* made an impact on his life both personally and professionally. Politics in the industry only added another layer to the game's legacy. Vince's presence on the Xbox was clearly needed. The original Xbox had virtually no platform games. Regardless, Microsoft never pushed *Voodoo Vince* as hard as it could have, instead focusing the majority of its attention on the *Halo* series. And while the game was praised for its innovation and polish, it was unable to take advantage of a very small opportunity Microsoft gave it.

"I want to say I was just happy and proud and that's that. I was, but there was sadness too," Kauzlaric said. "We knew months before the

game was finished that Microsoft wasn't going to sign a sequel. We met with other publishers and pitched new ideas, but it was a tough situation. *Voodoo Vince* wasn't out yet so it was difficult to prove we were a capable studio. Our work on Vince was clearly high quality, but publishers were getting more conservative and wouldn't touch us until they saw how our first game did in the marketplace. Of course, by then it would be too late. That was the end of an era for Beep and most of our team. I carried on with a smaller crew for a few more years, but the company was never the same after that.

"Some people really liked it. Reviews were generally good, but quirky platformers are sometimes hit and miss. I also think the audience on Xbox was moving away from platformers long before Vince hit store shelves. We got high marks for art and style, but the biggest complaint was that the game was too short. A lot of players could get through it in eight hours or less. That's not short by today's standards, but it cost us a few points with some reviewers back then. It also came out when the original Xbox was starting to wind down. The final strike was launching opposite *Grabbed By The Ghoulies*.

"Microsoft did a pretty small manufacturing run for Vince, so it was hard to find even if you did want to play it. In spite of all this, it still found an audience who loved it and appreciated its unique qualities. A small but passionate fan base, plus a limited supply, made *Voodoo Vince* something of a cult hit. That part amazes me. For the gamers who latched onto it, that attachment to Vince only grew stronger. I still get a lot of emails with pictures of homemade Vince dolls, Vince tattoos, and fan art. That's astonishing after 13 years. Even more fans emerged when we announced *Voodoo Vince: Remastered* in October [2016]."

The decision for Kauzlaric to remaster the game isn't a shock in the remaster-crazy world we live in today. But for a game like *Voodoo Vince*, it makes even more sense. Kauzlaric's original code made the game unable to utilize the Xbox 360's backward compatibility feature. So for many that have enjoyed the game, or even those who always wanted to, but didn't experience the original Xbox era, the end of the *Vince* era was obvious. Arguably the best original platformer on the Xbox, *Vince* is back and better than ever on the

Xbox One.

"I've always been a little sad that *Vince* seemed destined to remain in the past," Kauzlaric said. "There are still fans of the original game who have kept their original Xboxes running all these years. Anyone else who might be interested in the game has to look for a console and a copy of the game on eBay. I've always been really proud of *Voodoo Vince* and wanted to bring it back for those fans and make it available to a new audience."

Running with enhanced visuals and sound, the remaster is everything Kauzlaric wants it to be. Now able to connect with more gamers than ever before, his smart-mouthed, sarcastic little Voodoo Doll is able to smash his head, double jump and hover for a brand new generation of players. "If you loved *Voodoo Vince* in the past, but haven't had access to the original Xbox for many years, this will be a way to revisit an old friend," Kauzlaric said. "Maybe you heard about the game and wanted to give it a try. The remastered version makes that possible without the need to dig up an original Xbox console. And if this is the first you've heard of *Voodoo Vince*—if you like a really pure character platformer with pinpoint control and lots of bottomless pits, this game is for you."

The remaster is also an opportunity for dedicated fans to see many of the small touches Kauzlaric and his team added in the original version that many might have missed, making it the best version of the game. "We didn't ship with any cheats and the game doesn't have any real Easter eggs. The hidden stuff in the game is mostly inside jokes and messages the team created for each other. The ads and signs you see in the game mostly refer to team members. There were a few things the team added to be silly and gross," Kauzlaric said. "The horse statue in The Square has an apple core in its bum. There is some potty humor inside the pirate ship. Most of that was hard to see in the original game due to screen resolution, but they're pretty easy to spot in high definition."

So for a game that suffered from so much politically and just as much in terms of bad luck, perhaps even a voodoo spell by the gaming gods, *Vince* and Kauzlaric, over a decade later, have their happy ending. And they didn't need to hurt themselves to get it. "It's a good game. Sentimentality is another factor. I think that has

as much to do with when and where people were in their lives when they first met *Vince*," Kauzlaric said. "The games we play when we're growing up have a special place in our hearts. A lot of our players were kids and *Voodoo Vince* was one of the first things they ever played. I also think it helped that we tried some things that set the game apart creatively. I never stopped hearing from fans of the game, even though it never saw backward compatibility on the Xbox 360."

Warren Spector, *Deus Ex*

From Troublemaking Shooter to Genre-Defining Conspiracy Theory

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Considered one of the best PC games of all-time, Warren Spector's *Deus Ex* is also one of the most influential titles, ever. With a wonderful gameplay engine that blends shooting, stealth and story, it took the role-playing/first-person shooter genre to a level it had never been to before previously. It is also a game that made titles the likes of *Fallout 3*, *Dragon Age*, *Bioshock*, *Mass Effect* and even the *Grand Theft Auto* series not only possible but better.

Set in the near-future, *Deus Ex*, ironically originally named *Shooter*, is set in a world where every conspiracy theory you've ever heard is true. The Illuminati, Knights Templar and Roswell—all happened and it gets worse, plague, disaster and corruption rule. In this world, society desperately needs a savior. This world is a mess and you have an opportunity to make it whatever you think it should be. Nothing is labeled. Nothing is black or white. Everything is gray and can be changed. The game's main character, JC Denton, an agent for the United Nations Anti-Terrorist Coalition, may seem a bit bland at first, thanks to his Keanu Reeves-esque look from *The Matrix*, but as the game wears on, you'll grow to love him.

That's because he is you. From the game's first mission, every choice you make in the game changes the way the story progresses. You'll quickly understand that you can play this game any way you want, but you have to be prepared to deal with the consequences. In its own way, *Deus Ex* was just as much about you discovering who you were as it was finding out what went on in this crazy in-game world.

Full character customization in the form of skill points and augmentations also gave the player even more latitude to play the

game the way they wanted. With so many different attributes that could be modified, from swimming and lock-picking to the player's precision with different types of weapons, the ability to create a completely unique character was awesome. It was also extremely foreign to the first-person shooter genre. Before *Deus Ex*, the story was usually secondary to the shooting. The same went for exploration. Usually confined to linear corridors, shooters were frenetic and relied on quick reflexes, rather than intelligence to survive. The landscape of *Deus Ex*, on the other hand, always felt ripe for exploration.

"I can't really take much credit for that," Spector said. "The team really embraced the cyberpunk vibe we were shooting for. The designers built believable spaces, based on real-world locations. The artists gave those locations a striking look thanks to some effective lighting. And the music was just terrific. Alex Brandon did a great job setting the mood through his audio work. It still blows me away. (I was listening to the score just the other day, in fact.) I don't know how that affected the game's legacy, but Alex's work was certainly important in establishing the mood of the game."

Warren Spector's reputation in the industry has everything to do with his ability to take on immense challenges and deliver.

While *Deus Ex* features plenty of instances where you'll do your fair share of killing, you'll enjoy the game far more if you're thinking about the consequences of your actions. With such wild, realistic and expansive environments and morality-infused gameplay, there wasn't another game in the shooter/RPG genre like *Deus Ex* before it was released. With so many choices and consequences in gameplay, no one person played the game exactly the same way. To this day, if you put a dozen or so *Deus Ex* fanatics in the same room, you will hear entirely different narratives on how the game affected

them and how they handled themselves during its biggest moments. Simply put, there was a plethora of ways to get invested in the story. Interacting with main characters and getting informed on the story that traditional way was one thing, but thanks to everything from newspapers on the street, to hacking computers, reading e-mails and overhearing conversations, the story became as deep as you wanted it to be. This was Spector's vision all along. The game, from day one, was supposed to be different.

An aspiring film critic and eventual video game journalist before he was a creator, Spector worked on tabletop RPGs for Steven Jackson Games' before he played roles in the production of iconic video games the likes of *Wing Commander*, *Thief* and the *Ultima* series. He even met his wife of 30 years (and counting) in a comic bookstore that she worked at. If anyone understood that the video game industry was due for something fresh and different, it was Spector. Simply put, the idea for *Deus Ex* was in his head for years. It was a variety of things, from publishers not wanting to take a risk, to technology not being there, that the game was not yet made. Fast forward a few years and things were different. The industry was now ready for Spector's vision to blend first-person shooting, adventure and RPGs into something the world had never seen before.

"*Deus Ex* was born largely out of my frustration with fantasy and science fiction games," Spector said. "I'd worked in those genres for so long I needed a change of pace so I started thinking about the 'real world roleplaying game.' In the way that games change as time goes on and you think about it harder and you bring a team on board, the game ended up being far from my original concept. But it still captured some of the feeling of being in the real world—our world—and not in some goofy made-up world."

As Spector alluded, bringing in more people meant having to compromise his original vision. The word on the project was that it was going to be different and every developer that was involved sought to put their own stamp on the game. As a result, the development process took time. In development for 34 months, the balancing act was often a tough one, but luckily for Spector and his team, it was one that Eidos, the game's publisher, fully-supported.

"Development of *Deus Ex* was pretty intense. We were trying to do something new, something no one had done before—the idea being that players could really solve problems the way they wanted rather than the way a designer wanted them to," Spector said. "Any time you try to do something new and different, development is going to be hard. *Deus Ex* was hard. There were also team problems of my own making—I hired a large team of designers with widely divergent backgrounds and some of them never got what we were trying to do. They just wanted to make a traditional role-playing game. That created a lot of tension. And then there were the hours. The team crunched very hard. At the end of the day, though, everyone was passionate about what we were doing. And we eventually got on the same page. The team ended up being one of the strongest I've worked with. One more thing—burned out as many of us were, it was great when Eidos gave us nine extra months to make the game what it eventually became. They saw the potential in *Deus Ex* and gave us the time we needed, even though we missed our original ship date. That doesn't happen very often."

Although Eidos was supportive of the game, with delays come pressure. Refusing to cut corners and sacrifice his vision, Spector dealt with the continually ongoing issue that the publisher didn't understand what he was going for in the first place. "It never crossed my mind that we wouldn't ship. It certainly crossed my mind that we might fail at what we were trying to do, that's for sure. But I knew we'd ship something," Spector said. "The biggest concern I had was that some folks at Eidos were pressuring me pretty hard to 'just make a shooter.' But I wasn't having any of that. The team and I were on a mission and I would have shut the project down myself if that mission got derailed."

Looking back on the game's development, Spector needed only one word to describe how he felt when it was all over. Unlike the game's soundtrack which features, jazz, classical and even techno tracks, or even the cross-genre nature of the game, Spector's memory of that moment is far more simplistic. "Relieved. The development of the game really was stressful," Spector said. "The team was great but tough to manage. The hours were long. I had no idea whether people would get what we were trying to do. Shipping is always a great feeling, but with *Deus Ex*, it was particularly sweet

because we all felt we'd accomplished what we set out to accomplish, regardless of how the press and public responded to it."

The 34 months of development were ultimately worth it however as the game quickly garnered critical acclaim. With a 90/100 aggregated score on *Metacritic* and over 30 best of 2001 awards, *Deus Ex* is one of the highest-rated PC games of all-time. "The reception was terrific right from the start. There was one journalist who absolutely hated the game, but the rest of the press folks got it and gave us amazing reviews," Spector said. "And the fan mail poured in. And we won a bunch of awards. And other developers told us they changed the way they thought about games after *Deus Ex* came out (which was really gratifying). The whole experience, post-ship was super positive."

Even the PlayStation 2 port of Deus Ex, which needed to be simplified due to the system's technical ability, was a success, earning a perfect score from then-industry leading and fan favorite GamePro magazine and 90/100 ratings from PSM Magazine and Game Informer. "I think the Playstation 2 version of *Deus Ex* was kind of a miracle," Spector said. "I'm not saying it played as well as the PC version, but just the fact that the game ran on a Playstation was amazing to me. We had a small team working on that and they really did pull off something that seemed impossible when we first started on the project."
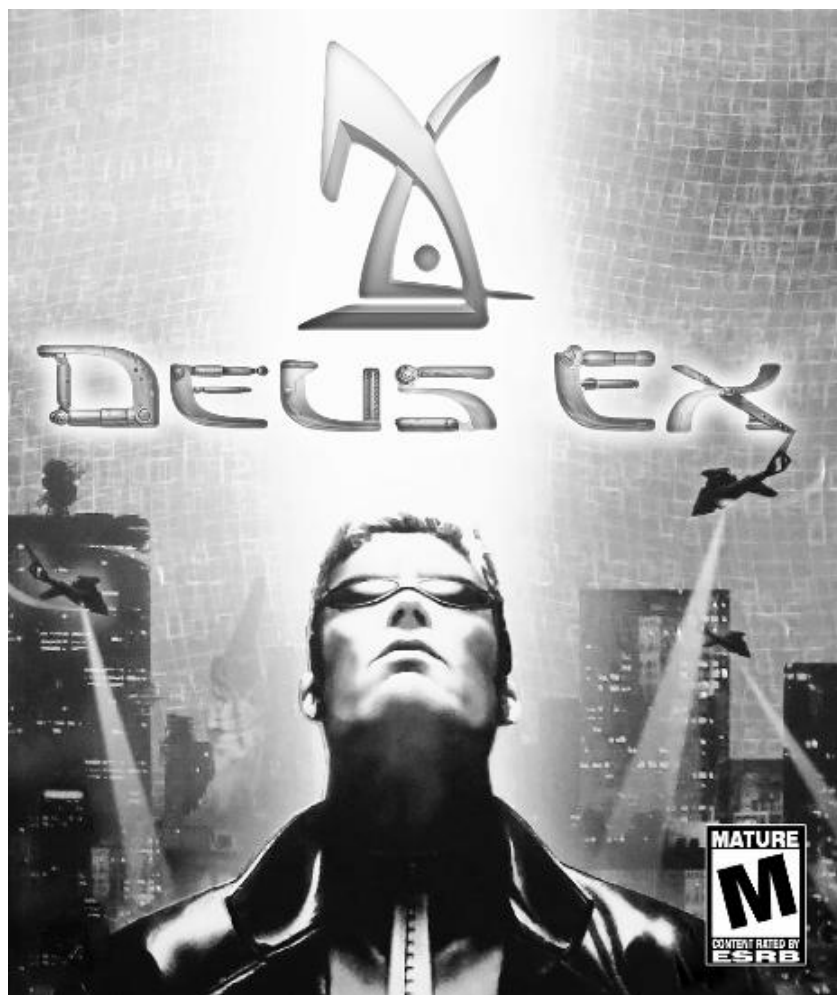
Deus Ex is a game still played today thanks to a thriving mod community.

Thanks to a thriving mod community, _Deus Ex_ is still played today. Developed using the Unreal Engine, the game's development kit is available to anyone who wishes to modify it. From fan-made mods to ones supported by Square Enix—who acquired Eidos well after the development and release of _Deus Ex_, supported Caustic Creative's _Deus Ex: Revision_ mod in 2015, which not only improved

the game's by now worn out visuals, but also made it easier for gamers to create new environments in the game.

"I have no idea why people still care—deeply—about a 16-year-old game," Spector said. "I mean, today there are games doing basically what we did, but with better graphics and more accessible user interfaces. I think part of it is the fact that a lot of the science fictional elements of our near future world have come true in our real world. That's kind of cool. And it may be that we went further than most games—even to this day—went in empowering players to craft their unique experiences through their in-game choices. But, really, I don't know. Success in the game business is kind of lightning in a bottle—you can't really capture it; you can only enjoy it when it happens. I'm super proud that people still love the game."

Although an iconic creator, Spector is still a human. Like anyone, Spector's original vision was to make people think more about the games they played—to not be forced into a genre or a certain way of playing because they were playing a shooter. But that doesn't mean its the only game he'd like to be remembered for. While not nearly as important to the video game landscape as *Deus Ex*, Spector's development of the *Epic Mickey* series is one he sees as just as important because it was a game that affected younger gamers. Like Howard Scott Warshaw's ability to be remembered for both the best and "worst" of the Atari 2600, Spector does not run from the notion that *Deus Ex* was an intelligent and definitive adult game and *Epic Mickey* was a beautiful and thoughtful kid's title that most adults can't get into.

"*Deus Ex* and *Disney Epic Mickey* are probably the two games I'm most proud of," Spector said. "*Epic Mickey* touched people emotionally in a way none of my other games have. And *Deus Ex* was the one game I've worked on that ended up expressing everything I hoped it would. Every detail changed during its development, but the way it felt was exactly what I hoped it would be when I first started thinking about it. All credit for that goes to a team that took my ideas and made them better than I could have hoped. I'd like to think *Deus Ex* made a difference, not just to players, but to the medium. If that's egotistical, so be it. I have always felt like the video game medium could be so much more

than it is, that it's an infant medium in the process of growing up. If *Deus Ex* helped the medium mature I'm a happy guy."

Jon Van Caneghem, *King's Bounty*

Putting the "Heroes" into "Might and Magic"

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Released in 1990 on PC and 1991 on the Sega Genesis, *King's Bounty* is a strategy/RPG that even the most hardcore of gamers may have missed when it originally hit shelves. However its place among the greatest strategy/role-playing games of all time should never be questioned. The spiritual predecessor to New World Computing's massively-popular *Heroes of Might and Magic* series, *King's Bounty* was a huge risk, but one that eventually paid off tremendously. Without *King's Bounty*, it's hard to see the first series in the franchise, *Might and Magic* developing into a game that would go on to spawn over a dozen sequels, spin-offs and DLC. On its own merits, however, *King's Bounty* is a game that merged the strategy and RPG genres into something that was smooth, deep, challenging and most of all, fun.

"I think it was the first of its kind and had a lot of great game systems all working well together," *King's Bounty* creator Jon Van Caneghem said. "More simply, it was original and fun to play."

King's Bounty is a wonderful title and one that merits discussion over 20 years after its release because in terms of gameplay, it is essentially *Pokémon* meets *Dungeons and Dragons*. At the start of the game, gamers must build their own army, ranging from Pikemen and Archers to eventually Vampires and even Zombies (and like *Pokémon*, they all had their own strengths and weaknesses) and defeat 17 villains across four different continents in an effort to save the world. In order to do that, you'll have to collect 25 pieces of a map that'll lead you to the Sceptre of Order, an item needed to save the life of King Maximus and defeat the evil Arech Dragonbreath. If time runs out, it's game over. Playing like a classic tabletop adventure, time is always a factor. You can ill afford to waste it. While there aren't gyms in *King's Bounty* to battle in like *Pokémon*,

the acquisition of smaller kingdoms and castles (flooded with criminals that can be captured and defeated to gain experience and cash to build your army) make it a game that any hardcore Pokémon fan can get into. This element alone will invest you in the game and make you care—a lot more than you would have originally thought when you first fire it up. Add in the fact that the location of the Sceptre of Order is randomized every time you play and the game has nearly unlimited replay value.

Again, because all the creatures in your armies played different, with their own strengths and weaknesses, gave you a ton of different ways to build your army. It gave *King's Bounty* plenty of replayability as well. Much like *Pokémon*, creatures are native to certain areas and defeating villains and exploring is key. The gamer also got access to treasure chests and spells which allowed them to make their teams stronger. By the time you're a few hours in, you care about your army and every time you take heavy losses in battle, you'll feel it. While a single-player experience, it's the type of game you could watch your friends play and easily get entranced enough to start your own adventure. Not exactly what Van Caneghem had in mind when making the game. Nevertheless, it's still an interesting part of the gameplay that keeps players consistently coming back for more.

"I always thought players would get attached to the heroes. The creatures were meant to be consumables," Van Caneghem said. "It was interesting that many players become very attached to the actual teams."

Pokémon creator Satoshi Tajiri has said in interviews in the past that he was inspired by his love of bug collecting as a kid for his series. Ironically, although much different in setting and inspiration, *King's Bounty* possesses so many of the qualities that Game Freak's iconic title does. After a few minutes of gameplay, it's impossible to not see the similarities. Although it may not be nearly as successful as Pokémon, it deserves a place among some of the most influential titles of all time for just being one of the first to combine the strategy and RPG genres so seamlessly. Unlike Tajiri, Van Caneghem got his inspiration for the game from a much different place than the forests and bugs of Japan. Already a seasoned

developer by the time he began development on *King's Bounty*, Van Caneghem was hungry to create something new.

"RPG and strategy had always been my favorite types of board games and with the success of the *Might and Magic* RPGs, I decided that I wanted to make a cool fantasy strategy game," Van Caneghem said. "I wanted everything that I had enjoyed from numerous board games all wrapped into one game adapted for a computer game: character classes, exploration, RPG elements, puzzles, creatures used as consumable armies, artifacts, a tactical combat system, resources, and a budget. But most importantly, a game that you could play in a few hours, get a score and play over and over trying new strategies and difficulty settings."

Simply put, Van Caneghem's team knew how to hook players. Not even 30 by the time *King's Bounty* was released, Van Caneghem already had four other games under his belt (two not of the *Might & Magic* franchise), all with varying degrees of success. A UCLA graduate, Van Caneghem eventually pulled out of a pre-medical program and majored in computer science. That's where his heart was. It showed in his games. But like most great artists, Van Caneghem knew where to hit gamers the most. For example, the "game over" screen in *King's Bounty* was one that made you feel terrible for failing the King and almost forced you to try again: "You have failed to recover the Sceptre of Order in time to save the land! Beloved King Maximus has died and the Demon King Urthrax Killspite rules in his place. The Four Continents lay in ruin about you, its people doomed to a life of misery and oppression because you could not find the Sceptre." That just hurts. Enough to make you sometimes give up on your team you invested hours in and start all over again. How many Pokémon players have done that?

Although it can be beaten in about a half dozen hours if you're a completionist, the variety of characters, things to do and fun battles make it a classic. Regardless, it completely slipped under the radar for many console gamers in the early '90s. That's because of how unique it is. Simply put, this is a game that is nothing like many of the first-person RPGs (*Shining in the Darkness*, for example) in the beginning of the Sega Genesis' lifespan. Although far from sexy visually (the horse in the game only gallops east and west, even if

you're moving north and south) it's a classic tabletop experience built to work on the Sega Genesis and DOS. More of a strategy game than a true RPG, the management of troops will remind many of the Game Boy Advance classic *Advance Wars*. But thanks to the fun story and exploration factor, it's got just enough RPG elements to attract a variety of gamers.
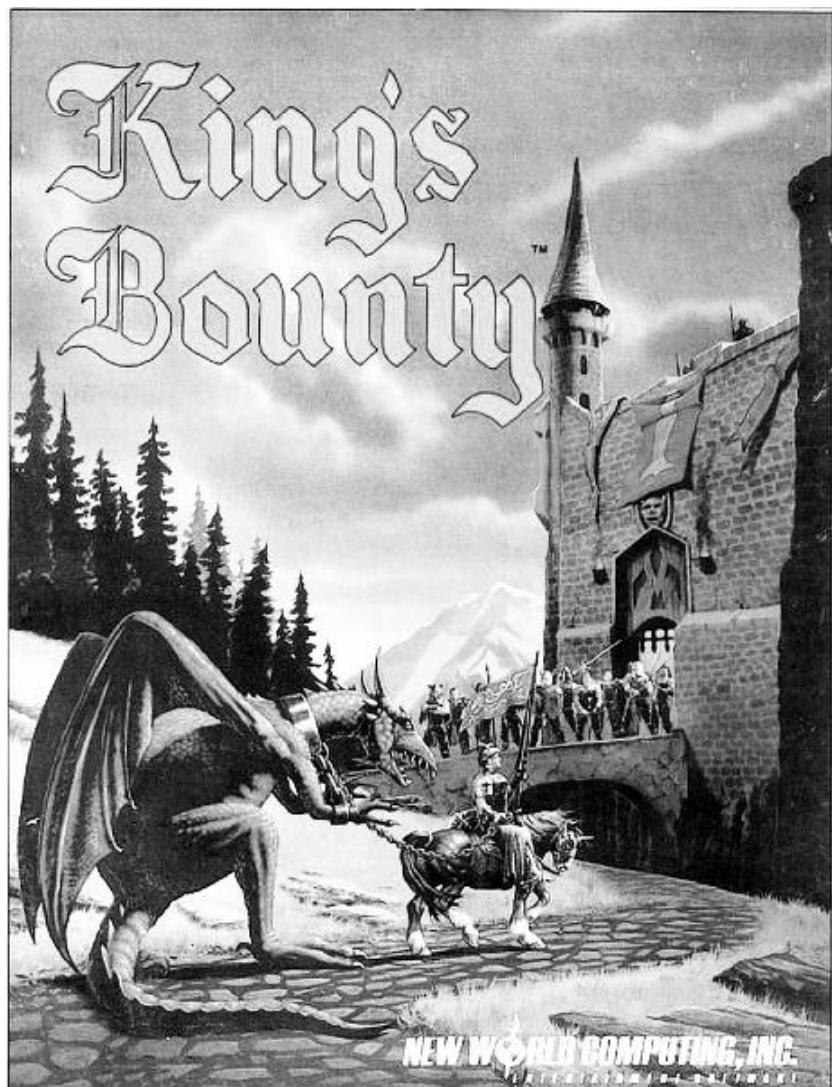
King's Bounty led to development of the iconic *Heroes of Might and Magic* series.

Prior to *King's Bounty*, Van Cangehem created the *Might and Magic* RPG series on the Apple II in 1986. Four years later, the series spawned a sequel and plenty of fan support. Van Cangehem still wanted to try something different. Straying away from the first-person view and adopting a bird's eye view of the action, *King's Bounty* definitely marks the evolution of the series. For that reason, many gamers had no idea it was connected to the *Might and Magic* franchise at all. A few years later, however and you could see just how much this one-off game influenced the mind of Van Caneghem.

"This was my first game that I focused more on design and handed most of the programming over to my colleague and friend Mark Caldwell," Van Caneghem said. "Together we rapidly iterated the game and tried lots of different ideas for game systems and features. It was great fun and led to a dynamic team that was the foundation of all the *Might and Magic* and *Heroes* games yet to come. Although I really missed programming, I realized I could create bigger and better games by designing and leading a team. It's very difficult to create something new and original."

Despite the fact that the game is one of the most unique strategy-RPGs of its era, Van Caneghem and his team were heavily inspired by pop culture. "Many of the villains in the game are loosely based on friends and people who worked on the game. A lot of influence (and daily fun) came from movies like *Excalibur*, *Princess Bride*, and everything *Monty Python*," Van Caneghem said. The game's programmer, Mark Caldwell, who later went on to work on titles the likes of *TNA Impact*, *Unreal Tournament III* and *Lords of Everquest*, also created the game's score. Even by today's standards, the score is uber catchy and sets the medieval tone nicely.

"Given how primitive the tools and resources we had, it came out great," Van Caneghem said. "We also had quite a few laughs with the sound, I still remember Mark's favorite was the combat win theme, he would sing, 'We kicked their butts and now we get their stuff.' It matched perfectly."

You'd think that a game did so many things well, from the deep gameplay and excellent score, would have no problems selling. *King's Bounty* however, according to Van Caneghem didn't realize its true potential until it was ported from the Apple II to the Sega Genesis and a few other systems. The Genesis version featured several changes however, from being unable to name your characters and a small change in gameplay (allowing enemies to move towards you and engage in combat) that made the game more challenging. Nevertheless, it was still one of the best games released on the console in 1991. Like many cult games however, it wasn't until years later that the gaming world saw how influential *King's Bounty* was.

"One of the difficulties with *King's Bounty* was we couldn't get much shelf space at retail. In fact, one retailer told us if it was a *Might and Magic* game, things would be different," Van Caneghem said. "So *King's Bounty 2 of Might and Magic* wasn't going to work. I kept the 'Heroes' from *King's Bounty* and that's how we got to *Heroes of Might and Magic*. Not exactly a sequel, but an evolution of the game mechanics and features that people liked from *King's Bounty*, with additional new ideas and systems."

Blending RPG and strategy elements together almost seamlessly, *King's Bounty* is a memorable title on every console and platform it was released on. On the Sega Genesis however, it was something completely unique for its time. There simply isn't another game like it on the system. Its importance on the future of Van Caneghem's career and the future of the *Heroes of Might and Magic* series cannot be denied either. Sadly, however, *King's Bounty* will never have a sequel. Well, at least from the original team that developed it. Van Caneghem's New Word Computing was acquired by 3DO in 1996 for $13M. Ubisoft now holds the rights to the *Heroes of Might and Magic* series.

In 2008, Russian developer Katauri Interactive also purchased the rights to the *King's Bounty* series and created *King's Bounty: The Legend*. That continuation of the franchise has released several other games in the series including *King's Bounty: Warriors of the North*, *King's Bounty: Crossworlds*, *King's Bounty: Armored Princess* and *King's Bounty: Dark Side*. While those games have gone on to sell well and

try to capture the essence of the original with better technology, hardcore fans would argue that you can't have a sequel to the game without Van Caneghem and Caldwell's participation.

The main reason for a lack of a sequel was Van Caneghem's development on other landmark franchises. We've already discussed his role as the main mind before *Might and Magic* and later, *Heroes of Might and Magic*, but his resume certainly doesn't end there either. Going on to play a role in the *Command & Conquer* series and recently releasing his first game on the mobile market in 2017 dubbed *Creature Quest*, Van Caneghem is far from finished creating. At the same time, he owes a lot of his success to an RPG-strategy game that forced him to flex the creative muscles he's been known for now for over 25 years.

"*King's Bounty* will always be special for me. It was my first strategy game I designed," Van Caneghem said. "After it shipped, I went back to focusing on the *Might and Magic* RPGs. Without the fans' continuous support and relentless asking for a sequel, *Heroes of Might and Magic* would have never been made."

Garry Kitchen, *Super Battletank*

Even Better Than the Real Thing

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Military combat games were increasingly popular in the early '90s, thanks to the United States' involvement in the Persian Gulf. But long before that, war games had a presence on home consoles and arcades across the country, due to Cold War escalations between the former Soviet Union and the United States that coincided with the rise of the industry in the late '70s and early '80s. While films the likes of *War Games* and *Red Dawn* (thanks partially to starring roles from Patrick Swayze and Matthew Broderick) hit the technological and down-on-the-ground elements of modern warfare well enough to garner cult status among cinephiles, films based on tanks never got the same justice (sorry, *Patton*).

That left the video game industry as the perfect place to pick up the slack. Long before *Battle Tanx*, *Assault Rigs* and even *World of Tanks*, there were plenty of other solid tank-based games. The 2600 had *Battlezone* in 1980. The Sega Genesis had *M-1 Abrams Battle Tank* in 1988. In 1990, Garry Kitchen, the man behind *Garry Kitchen's GameMaker* for the Commodore 64, the Atari 2600 version of *Donkey Kong* and *Keystone Kapers*, one of the 2600's best original titles, created *Battletank* for the Nintendo Entertainment System. Although not the visual powerhouse of its successor, 1992's *Super Battletank*, the original *Battletank* proved that the tank genre could be realistic and fun at the same time. With a smokescreen, machine gun, cannon and a missile launcher, the gameplay was deep enough to warrant a sequel, a rarity in the genre back then. One of Absolute Entertainment's first hits, it allowed the young company to make a name for itself.

"The game was a solid seller for us, not a runaway hit, but a catalog game that was regularly reordered," Kitchen said of the original *Battletank*. "That was refreshing at the time, as most games went

out with an initial shipment to 'fill the pipeline' and that was it."

With the United States' involvement in the Persian Gulf War and the position the M1A1 Abrams Battletank had at the front of the conflict, seen on CNN as one of the main catalysts in the liberation of Kuwait, many gamers saw it as something equally as formidable, as it was cool. "The first Iraq war had a very different feel than the second [George W. Bush] war. There was a broad coalition of countries involved and there was a lot of popular support for the war since Iraq had attacked Kuwait," Kitchen said. "Certainly, not as politically-charged as today's world."

The war was still a serious enough event that Kitchen and his team knew they had to go for a balance of arcade and realistic gameplay, with the latter setting the tone. War was tough and riding a tank through the desert was no walk in the park either. From the opening screen with its gritty score, *Super Battletank* was able to capitalize on the awesomeness of the M1A1 and bring it to the forefront of the video game medium. That started way before the opening theme as well, with the design of the front cover. "My business partner Bill Wentworth oversaw marketing and he did a fabulous job on the package design," Kitchen said. "I especially love the photo of the M1A1 tank on the cover of the box. I remember when Bill located the stock photo that we ultimately used, the soldier manning the gun had a huge smile on his face. Concerned about backlash [i.e., why is he smiling while he's shooting a gun?], we modified the image to 'wipe the smile off his face.'"

But with the Nintendo Entertainment System on its last leg by 1992 (while *Wario's Woods* was the last game released for the NES in 1994, the unveiling of the Super Nintendo in 1991 was the beginning of the end for Nintendo's original home console), Kitchen knew it would be no easy task to give gamers what they wanted in a sequel to *Battletank*, on a new console no less. On top of that, the Super Nintendo, like most cartridge-based consoles, wasn't the perfect system suited to the needs of the game. That made the development of *Super Battletank* an interesting experience for Kitchen.

"The most challenging part was achieving a photorealistic look," Kitchen said. "Photorealism is easier on a bit-map graphic display

system. However, the NES and SNES were character-based graphics systems, meaning that the complexity of the image on the screen is limited. Attempting to display an image with realistic lighting and shadows can be quite difficult. We digitized actual footage whenever possible, which was tricky because in that timeframe [1990] computers weren't very good at handling large files and digitizing tools were limited at best. In addition, with the game in cartridge format [i.e., limited memory vs. today's optical media], we had to be very clever in how we stored [i.e., compressed] the graphics."

Garry Kitchen is best known for his work on *Donkey Kong* on the Atari 2600, but he's been an iconic creator for over three decades.

Although Kitchen had to work around the limitations of the Super Nintendo to achieve the look he wanted *Super Battletank* to have, he understood what the game needed in order to be a successful one. Away from being visually appealing, it had to have the proper atmosphere and sound as well. Known for his attention to detail in

previous games, Kitchen took it to the next level for *Super Battletank*. While some gamers weren't fans of the controls, which had the player use the L and R buttons to turn their tank, as well as inverted aiming of the tank's weapons, they realistically captured the movements of the tank and simulated combat well. The fact that the game almost felt like it was shaking when you fired your cannon was a testament to solid SNES game design and set the tone for the game's atmosphere. Unlike other games in the genre before it, your tank doesn't control like a Ferrari and getting from place to place is never easy. Managing resources is often a key in *Super Battletank*, giving it an almost puzzle-like feel at times. While you can try to run and gun through enemies, crafting intelligent and efficient routes through each level is difficult and equally as rewarding. With more enemies than the original and improved sound as well, it was definitely a better game than the first *Battletank*.

"I do remember how hard I worked on creating the effect of the big gun firing," Kitchen said. "I wanted it to knock you out of your chair. I spent weeks referencing slow motion footage of the actual M1A1 Abrams tank firing a shell, paying close attention to the initial flash and the way the smoke dissipated. I spent a lot of time with the artist tweaking that effect."

Once released, Kitchen's efforts proved to be a success. As a result of all of the attention to detail, *Super Battletank* was ultimately much more than a capable tank-sim. With the digitized footage, similar to later games the likes of *Mortal Kombat, Super Battletank* had some of the best visuals of its time. While not quite a launch title for the Super Nintendo, it was an early game in the system's history and one that garnered a lot of buzz due to its look and subject matter. Similar to *A Boy and His Blob: Trouble on Blobolonia*, *Super Battletank* was also released on a tight schedule in time for the Christmas season to take advantage of gift-crazed gamers. Also like Absolute's first hit, the game was also a success. "People reacted well to the photorealism of the visuals," Kitchen said. "Nintendo Power gave it a great review, including the classic line '… looks so real that you'll wonder if it's Super NES or CNN.'"

The end result was a game that was praised by critics (it won the

best simulation of the year in the 1992 *Game Informer* year-end awards) and was a game that Kitchen looks back on as one of the most important of his career. Although already a legend thanks to his work on the Commodore 64 and Atari 2600 a decade before the release of *Super Battletank*, Kitchen had a blast working on 16-bit consoles. "Developing for the Super NES was great fun," Kitchen said. "I liked writing 6502 code on the NES a lot and the SNES had a 16-bit version of the 6502 [65816] with much better graphics, more colors and more bells and whistles," Kitchen said. "I wish I could still write games on the Super NES today [and make a living doing it, of course]. One of my favorite consoles, for sure."

Although Kitchen said he's unsure of the game's actual sales (he estimates *Super Battletank* sold 150–250,000 copies), it was definitely a hit by SNES standards, even if it's a forgotten title today. Its effect on pop culture is an understated one as well. Simply put, in its own way, it put Absolute Entertainment on the map. Many people who have never played the game, have probably seen it in a variety of different places.

"*Super Battletank* was used in the Barry Levinson/Robin Williams movie *Toys*. We had a close relationship with 20th Century–Fox at that time and they reached out to us, asking if we could develop a custom military-style game for use in the film. The game wouldn't actually be playable. It had to look like an arcade game being played, but the action on the screen would be scripted; for example, 'tank drives diagonally across the screen, gun fires and tank blows up.' The actor would only appear to be playing the game. We used *Super Battletank* as the basis for the fictional game in the movie. It was great fun doing that side project and we were proud to have our work in a feature film."

To call *Super Battletank* a cult game or a success just because it sold well for its time and is featured in a big screen film with a comedic legend in a starring role would be presumptuous, though. The game's grasp was much wider than Hollywood in the early '90s. It ended up impacting someone Kitchen—and the rest of the world— could have never imagined. "The Edge, the guitarist of the super group U2, was a huge fan of *Super Battletank*," Kitchen said. "A few months after the game came out, I got a call from someone

affiliated with the band. They wanted permission to use visuals from *Super Battletank* for their upcoming tour—the Zoo TV Tour, 1992/1993. I, of course, gave them permission. During the show, they would project video on a giant screen behind the band. At one point, they cut to the Edge playing *Super Battletank*. He was mesmerized by the reality of it, talking to the audience while he plays, saying things like:

Super Battletank wasn't a monster hit, but it was the best tank game on the Super Nintendo and a game that helped push Absolute as a solid developer during the '90s.

'It's incredible how it brings out a whole other part of your personality.

'You just want to kill as many of the enemy as you can in the shortest space of time. You get completely detached from the concept of somebody being killed.

'There is a blur between what's real now and what's make believe, or what's synthetic reality.'"

The support of a rock icon by itself wasn't enough to make the game a classic, but with the industry still a niche market, it didn't have to be. On its own merits, *Super Battletank* was a success. Thanks to a hearty balance of arcade gameplay and realistic simulation, it was a sleeper hit on the Super Nintendo. In its own way, thanks to the best use of a first-person tank game to date (away from the awesome periscope in the *Battlezone* arcade version), it definitely inspired the future of the tank-combat genre. It was also a game that helped Absolute Entertainment gain enough mainstream notoriety to produce games on various properties such as *Home Alone, Casper, Rocky and Bullwinkle,* the *NFL* and *Star Trek*. Although not considered by many to be Kitchen's landmark work, especially considering his involvement in a slew of iconic games and franchises, it still earned a place in his heart.

With over 30 years in the industry, various awards on his resume and sales for *Donkey Kong* on the 2600 alone eclipsing $100 million in total revenue, Kitchen is a legend. The fact that this cult tank game ranks so high on his personal achievements list alone proves its importance to the Super Nintendo and the industry. "*Donkey Kong, Keystone Kapers* and *The Simpsons* are usually the ones people know me for," Kitchen said. "Hopefully, the *Battletank* series stands right up there with them. They are certainly some of my favorite games that I developed."

Taichi Ishizuka, *The Firemen*

Through the Fire and Flames

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Taichi Ishizuka's *The Firemen* is an example of a game that was completely ahead of its time and absolutely under-appreciated upon release. Nevertheless, its effect on storytelling devices used in games makes it a landmark Super Famicom title and stresses the importance of taking creative chances in game development. It's crazy to think however that without emulation, it could have been lost forever. Not a huge seller in Japan or Europe upon release, it's a game that hasn't gotten its due until recently. Grand in scope, its score, storytelling devices employed, gameplay innovation and subject matter make it a marquee title for any gamer among the cultist's ranks.

Never made available in the United States, Human Entertainment, the publisher responsible for the iconic and equally as cult Fire Pro Wrestling series, released *The Firemen* on the Super Famicom (better known as the Super Nintendo in America), in 1994. Although almost 25 years isn't necessarily a long time to get a copy of an underrated film, book or even CD, in video games, a quarter of a century is like 200 years. As a result, getting to see an actual cartridge version of *The Firemen* today is tough. A loose copy, which features no box or instruction manual, could cost over a hundred dollars online and even more in a retro game store that could have it in near mint to mint condition. However, playable to most by emulation or by having a rare European version of the game, which was produced in English, it's a gem that many American gamers have never heard of.

And why should they have? *The Firemen* is a game that really doesn't have a discernible genre. How many video games are there available that let you be a firefighter? While a dream of many kids

growing up, it's not exactly a concept that translates to the video game world. That's the reason why the game wasn't a huge success financially, but that has nothing to do with the fact that it's one of the most unique and fun titles on the Super Famicom. Thanks to the game's wonderful use of tone, it's undoubtedly special.

While there are plenty of video games that feel like films, especially today, as both leverage technology from one another and try and cater to similar audiences, that hasn't always been the case. In the early '90s, games the likes of *The Firemen* didn't happen every day. Cartridge games just didn't have the power to tell tales that had that type of hyper-sensory environments and could convey the cavalcade of emotions needed to pull this game off. From an inability to handle photorealistic graphics and its sub-par audio capabilities, it's not an ideal console to carry the type of experience *The Firemen* eventually became. Nevertheless, Ishtuka and his team found a way to tell a story that is a far grander tale than the console should have let them.

The thing that makes *The Firemen* a unique experience is its atmosphere. From the opening screen where the player finds out the game's story, the seeds are in place. Without CGI, 3D graphics or CD-quality sound, Ishtuka and his team set up the game like a Hollywood blockbuster. As the story scrolls down the screen, awesome midi tunes that feel like you're visiting an eerie town in an RPG play as fire engulfs the screen. In a little over a minute, we have everything we need in terms of story to get invested.

Taichi Ishizuka doesn't have many credits under his belt, but *The Firemen* is a classic on the Super Nintendo.

"The Year is 2010. Civilization has progressed little in the last 20 years. It's winter in New York. The annual Christmas party at the Metrotech Chemical Company building is underway. The time is 6:00 pm. A small fire began in the kitchen which had been left unattended. The flames, fueled by the abundant chemicals, spread rapidly throughout the building. The D-sector fire brigade has received an alarm and has dispatched units to the scene. Pete and Daniel are two of the top high-rise firefighters and have twice received commendations for their bravery. Pete is the captain of his

five-person unit. Daniel, his partner, is second in command. Max, Walter, and Winona are the other members of the unit. As Pete's unit was first on-the-scene, they first talked with Metrotech's engineers about any potential hazards. Apparently, there is a large supply of the chemical MDL in the basement of the building. If the chemical should be exposed to excessive heat there could be a tremendous explosion. The unit splits up and will attempt to collect the MDL and bring it to the roof where the explosion will blow up the water tank and hopefully put out the fire. Pete and Daniel will enter the building through the east entrance."

It may sound corny now, but the beginning of this game, even with a lack of bells and whistles, got you excited. It made you ready to be the hero. Thanks to a fantastic score as well, the tension continues to build as you progress through every smoke-filled room. The fire itself shouldn't feel like a living breathing entity, but it does. As you walk into the room, you'll see it move in and your instincts will take over. With the help of your partner, you'll make each place safe again and slowly, but surely find out more of the story. The more you play, the more you'll appreciate his help and a bond will form. This is not your typical 16-bit experience. This is magic.

Although the storytelling devices in play sent the tone, *The Firemen* is a great game on its own merits as well. Blending an RPG-type story, almost shoot-'em-up elements with the fire hose and a unique enemy in the fire, it was a huge risk at the time, but an important one. That fresh take on what a game could be was due to where Ishizuka was in his career at the time of the game's creation.

"*The Firemen* was the first game I developed in my career," Ishizuka said. "Everything involving its development was an important experience and seemed new to me. I learned many things from the development of the game from this experience. *The Firemen* was a student graduation project in Human creative school. Every student had a chance to create an original planning document and then one or two titles were chosen by Human creative school and Human, Inc. These titles had a chance to develop and sold, supported by Human, Inc. Developers were also chosen from students. In my year, two titles were chosen. I was very excited when my planning

was chosen."

Easily one of the most creative video game publishing and development brands on the Super Famicom, Human released a slew of iconic titles in the 90s, from the original *Clock Tower* to more than a half-dozen *Fire Pro Wrestling* games, forever cementing the brand as an important one in Japan and amongst hardcore gamers in the states. Their ability to incubate Ishizuka and other young developers at the beginning of their careers made a game like *The Firemen* possible.

The '90s were a time of unparalleled creativity in the industry as games were beginning to tell broader and different stories. As RPGs the likes of the *Final Fantasy* and *Chrono Trigger* series told some of the best tales in the history of the industry, the sports genre raised the bar towards realism and added more polish than ever before. Even classics the likes of *Super Mario Bros* went so much bigger in approach and scope. *Super Mario World,* for example, took the same game mechanics of its predecessors and provided a deeper experience with the addition of Yoshi and bigger levels than ever before. For many, the sequels to long-established classics like *Super Mario World* and even *Super Castlevania IV* made gamers feel like a new chapter had begun. The canvas had changed. Limits could be tested and pushed now more than ever.

However, a game such as *The Firemen* paints with such a different brush that it almost feels futuristic, even with all of the new creative juices in the industry at the time. From the opening music to the game's tone, it's obvious from the start that this isn't a traditional gaming experience. As a result, it's easy to be intrigued by it. "It was inspired by the film *Backdraft* and *The Towering Inferno,*" Ishizuka said. "I thought 'Fire' was a unique material and the equipment of the firefighters was so cool. I think *The Towering Inferno* influenced me more for the in-game stories."

Not so ironically, Robert De Niro's character in *Backdraft*, Donald "Shadow" Rindale, has a line in the movie that beautifully sums up how the fire in the game makes you feel when you walk into a room. "It's a living thing, Brian. It breathes, it eats and it hates," De Niro says. "The only way to beat it is to think like it. To know that this flame will spread this way across the door and up across the

ceiling, not because of the physics of flammable liquids, but because it wants to. Some guys on this job, the fire owns them, makes 'em fight it on its level, but the only way to truly kill it is to love it a little."

The first few rooms of *The Firemen* acquaint you with your equipment, as well as Daniel, your colleague. Invincible and wielding an ax, he's more than useful in putting out fires and battling against the robots that attack. He's also great at moving objects and creating new paths in levels. Always a team, Ishizuka's design allowed gamers to instantly feel the camaraderie between firefighters. From the crawling under fires to saving people, the sense of fear that a firefighter faces is established early on and never lets up. However, the brotherhood of the profession is also captured wonderfully. Whether it's on the radio or Daniel right next to you, fighting the flames by your side, you've always got plenty of support. That situation was echoed in real-life during every stage of the game's development as Ishizuka and his team understood they had a common goal and worked hard for one another.

The Firemen is a rare gem that is incredibly difficult to find on the retro game market.

"I was a planner; there were also three programmers and three graphic designers that were chosen for my team," Ishizuka said. "Some producers supported the team along the way because the game was not able to be developed only by students. The sound effects and background music were developed by members of Human, Inc. My most important job was planning. I told my members what I would like the game to be and what my goals were. Naoki Sonoda [who would go on to program the original *Clock Tower* and *Super Fire Pro Wrestling X Premium*] was the producer of my team and also he was a great programmer. He helped the team a lot, especially the programmers. The entire staff was very talented."

With the team that consisted of student developers and Human, Inc veterans, you'd think that *The Firemen* could lack clear direction or even the polish it needed to be more than a game with a gimmick. But what it ended up becoming was a one-player adventure that was never done quite the same way ever again. While there have been a handful of other firefighting-based games released on a variety of systems, they all lack the emotional connection that *The Firemen* creates. It's crazy to think that this game could have done even more as well. Although the game's design has been praised and it ranks high on many "best games you've never played" lists all over the web, Ishizuka had a few other gameplay ideas that never made it into the final version.

"There are two things that weren't realized," Ishizuka said. "One thing that was a very important and unique idea which was left out of the game was called the 'Fire Hose' system. One of our programmers spent much time to create a hose system. The Hose System was the limitation of the length [of the hose] and stressed the importance of hydrant points. That system could have made gameplay a bit different. If we could have made this system, the game would have been more exciting. Most of the reasons why we gave it up was the spec [CPU] power of Super Nintendo. We also tried to make the game two players when the game was almost

finished, but we did not have enough time to figure out, so we gave it up."

Although a sequel was released a few years later and Ishizuka was originally given an opportunity to develop it, he ended up leaving Human Entertainment and decided to travel the world. Although his resume in the industry isn't huge, he also designed one of the first open-world games ever, *Mizzurna Falls*, that many feel influenced games the likes of *Shenmue* and even *Grand Theft Auto*. Regardless of the game's cult status, Ishizuka is confident in the legacy of *The Firemen*.

"*The Firemen* was my first title and it was very well-liked by many writers and players," Ishizuka said. "It did not hit as big in sales, but since it's a well-thought of title, I think that it affected the industry in its own way."

Dave Wishnowski, *Pro Wrestling X*

A Decade-Long Dream in Development

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Not many success stories start with the words "On a dare," but that's exactly how the infamous *Pro Wrestling X,* was born. While it may be too early to say if the game is ultimately a success or not, what *Pro Wrestling X* has been able to do is a testament to how the industry has changed and how anyone, with enough passion, patience and persistence, can make their dreams of releasing a video game come true.

With thousands of followers on Facebook, YouTube and Twitter, *Pro Wrestling X* is the very definition of a cult game. In development for over a decade, it's had more bumps in the road than magical moments, but as of the writing of this book, it appears to be closer than ever to becoming a finished game. From its humble beginnings, to its release on Steam Greenlight in November 2014, *Pro Wrestling X* attracts the best and worst of video game enthusiasts. From supporters so loyal that they've actually devoted hundreds of hours to testing the game, to those who trash the game on social media saying it'll never be finished, *Pro Wrestling X* does what many games never do, elicit emotions and create an ongoing conversation.

Fueled by the vision of the game's creator, Dave Wishnowski, *Pro Wrestling X* is a game that could have never made it to release in any other era. With various development teams at the helm and several working prototypes before its most current version, it's a game that has benefited heavily from the patch and greenlight era. While development has been slow, to say the least, Wishnowski and his team will continue to keep chipping away until they have something they are proud of, all without a huge commercial publisher at the helm. Thanks to services the likes of Steam and GOG, developers like Wishnowski don't have to deal with strict

timetables for release and don't have to compromise their vision. For Wishnowski, that vision is to make the spiritual successor to the THQ/AKI classic *WWF No Mercy*. Because of that, regardless of how many hurdles Wishnowski and his team have to jump and what obstacles are in his way, he'll always have thousands of supporters, hoping and praying he eventually finishes his game.

But to understand why there's such an underground following for *Pro Wrestling X*, you have to understand what a massive letdown the initial run of WWE/F games were on the PlayStation 2, GameCube and Xbox and how iconic the AKI WCW and WWF games were. To say it simply, the AKI wrestling games, from *WCW/nWo World Tour* and *Virtual Pro Wrestling 64* to *WWF No Mercy,* were the best wrestling games ever created. With top-notch controls, a fun counter system and (in the later games in the series) room to create your favorite stars not in the games, they were a blast. While not beautiful by any means, with polygonal characters beleaguered by jagged edges, the animations, from taunts and maneuvers were the best in the industry at the time and still look wonderful today. To this day, there isn't a wrestling game that gives the player as much satisfaction as the AKI games do. With the addition of running grapples and more gameplay modes and moves, *WWF No Mercy* is the culmination of the series and arguably the greatest wrestling game ever created.

Following the release of new consoles the likes of the PlayStation 2, GameCube and Xbox, Wishnowski and millions of other gamers expected the next games in the series to be even better. With more processing power, meaning better sounding audio and cleaner video (the AKI games had awful sound and video on the Nintendo 64, more of a knock at the console's limitations than AKI's developmental abilities) and improved visuals, the expectations were high. Unfortunately for them, they were left hanging onto their Nintendo 64s for their wrestling fix, waiting for the day for a game that could measure up. In spite of the realism and depth of 2K's WWE series today, those games still lack the ease of play and fun factor that *No Mercy* and its predecessors possessed. Wishnowski's mission has a huge purpose and an audience anxiously waiting for a new game to steal their imaginations.

"I had absolutely no background in game development at the time, but I was bitching and moaning about the sad state of the latest WWE game, *Wrestlemania X8*, for Nintendo Gamecube, on a Gamefaqs.com forum back in 2002," Wishnowski said. "Wrestling gamers had been spoiled by the classic *WWF No Mercy* for N64 the year before and the follow-up wrestling games on the next-gen consoles at the time (Gamecube, PS2, Xbox) had all been massive letdowns in comparison. I was that stereotypical know-it-all gamer being a loud-mouthed jerk when someone on the forum taunted me with, 'If you think you can do better why don't you make your own wrestling game?' I think I gave it all of five seconds thought before replying, 'Fine. I will.' And with that, the course of my life made an epic shift. With all the industry experience of a self-employed guitar teacher, I founded the consumer group Wrestling Gamers United, which quickly morphed into one of the first indie wrestling game development studios with the sole purpose of developing a wrestling game, 'By the Fans, For the Fans,' and I named that game *Pro Wrestling X*."

Dave Wishnowski's journey took him from disgruntled gamer on a message board to the creator of one of the most unique pro wrestling games, ever.

With no experience in the industry, but growing support from fans that couldn't believe a project like his even existed, Wishnowski's dream was well on its way. However, he'd learn lessons along his journey that challenged the dream and put it in jeopardy. "At first, I tried to do things the industry standard way. Raise money, open a studio and develop a complete game that can be picked up by a publisher and sold on shelves," Wishnowski said. "Remember, this was in the very earliest days of things like Steam and before crowdfunding or even social media had taken off. We were working with the tools of the day which included an ugly website and an email newsletter. It took a few years and many false starts, but I was finally able to raise enough via a loan to open a small studio in Vancouver. After over a year of working on the first version of *Pro Wrestling X* and spending almost a quarter of a million dollars on development, a newly hired programmer sheepishly approached me and confided, 'I don't want to cause any trouble but I'm pretty sure the game engine you licensed is full of stolen code.' Sure enough, an employee I entrusted our software licensing to had knowingly set up a deal with some friends of his to sell us a game engine they claimed was theirs to license, but in fact was the poorly concealed game engine belonging to another company.

"I had no choice but inform the company in question and they had no legal choice but to demand we strip their code from our game before shipping. It crippled us and I had to lay off a studio full of really good people just before Christmas that year. It was demoralizing and more than enough reason to call it a day and quit. But at least the art assets, graphics and animations were salvaged and over the next three years, these scraps of a wrestling game were cobbled together with the tiniest skeleton crew into what was ultimately released as *Pro Wrestling X: Uprising.*"

Uprising pales in comparison to what is on Steam right now from Wishnowski's team, but it was a start. One that proved that the team was capable of a release—something the trolls on the internet doubted from day one. "Even from the earliest, clunkiest demos, it has been received positively from people who wanted us to succeed and could see the potential," Wishnowski said. "Likewise, I've made

no shortage of mistakes and those who wanted us to fail could always find something to hate on. Right now *Pro Wrestling X* reviews are 'Mostly Positive' on Steam and our scores average higher than the WWE games at times."

More a tribute to *No Mercy* than a game with its own legacy, *Uprising* was like that first girlfriend you make too many dumb mistakes with to count, but always had a special place in your heart. While the game's heart was in the right place, it felt more like a *No Mercy* clone than something unique. Learning as he went, Wishnowski and his team continued to polish the game and deal with negativity and issues that put the product in question.

"It was clunky, ugly, and terribly visually dated, but it was a playable proof of concept that game our growing family of supporters had faith that we were on the right track with our vision for gameplay and how a fun wrestling game should feel," Wishnowski said. "Things were looking really good for us. And because success can sometimes bring out the worst in people this is when one of my crew decided to hold game code hostage and 'renegotiate' his contract. He was certain I would pay anything to save over a year's worth of development.

"Instead, I thought it was a perfect time to throw everything out and start over, yet again and use my accumulated production experience to rebuild *Pro Wrestling X* from the ground up and leave years of legacy assets and code behind. It was the right move and over the next few years, *Pro Wrestling X* was totally rebooted with all new gorgeous art assets and a solid game engine that we could expand and build on for years to come. But perhaps the single best thing to ever happen to *Pro Wrestling X* was the change in crew members around this time. No disrespect to the former crew, but I finally had a crew that was not only the most talented and experienced I ever had, but the new guys were all 100 percent wrestling game nerds just like I was. I didn't have to go hunting for them and get their commitment with lucrative job offers. These guys came to me and asked me to join the crew because they loved what *Pro Wrestling X* was setting out to do.

"The difference in the look and playability of *Pro Wrestling X* revolutionized almost overnight. Not only was it now a beautiful

game, but the new lead programmer knew and understood exactly what I wanted. Development pace exploded. A successful Kickstarter campaign and getting distribution on Steam via their Greenlight program a few years ago has finally set up *Pro Wrestling X* to be the success I always knew it could be. The next milestone we need to achieve is putting this incredible team to work full time on *Pro Wrestling X* and take it from a labor of love that we work on in between day job hours to a full-time fully funded project again."

Dave Wishnowski has gotten support from a plethora of stars of the wrestling industry, including former WWE World Heavyweight Champion A.J. Styles.

The road to get to the "new" version of *Pro Wrestling X* from *Uprising* wasn't an easy process, but Wishnowski's unbridled positivity and finally, some good luck—and a new team, turned the project around. Throughout all of those twists, turns and even emotional punches to the groin, he's always remained vigilant and positive. Eventually it helped him get the help he needed from

people who shared his vision. "I've never thought that the game would never come out," Wishnowski said. "From day one, I felt it in my bones. I made a promise to myself and everyone else that I would not stop until *Pro Wrestling X* was released. That's not to say there weren't moments when I was honestly at a loss for knowing what to do next to keep moving in the right direction. Sometimes I didn't know what to do except to put my ass in that chair and show up. I think the scariest time was shortly after we launched a very early version of the game on Steam early Access. After launching and promising customer steady updates we lost access to our lead programmer, crippling development. I knew then that the project was seriously screwed unless we could find that mythical creature we had failed to find up until then; a talented lead programmer who loved the same pro wrestling games that I did who wasn't already working for someone else.

"And that's when I received an email from a young guy who claimed to be a programmer who could help us out. I was skeptical, but decided to give him a shot. What did we have to lose? I asked him to send me a playable demo that included a few of the game mechanics that had historically stumped all of our previous programmers. And in just a few days he sent me something to evaluate. I booted it up and was floored. In the space of one week, he produced a wrestling demo that was without exaggeration 20X more functional that the 'game' we had on Steam at that moment— that had taken us six months to get that far. I was embarrassed at first thinking of how much time and money was spent on how little we had to show compared to what this guy just slew me with. But I don't think I was ever happier than when he joined the crew and took control of programming. It finally felt like *Pro Wrestling X* had the crew it deserved and development pace has nearly brought me to tears of joy ever since. You need people who love pro wrestling games to make a pro wrestling game. Such a simple, but vital lesson to learn."

While Wishnowski's motivation and passion for the project was never in question, his ability to keep fans in the loop for over a decade is something that even the most seasoned public relations gurus would have problems doing. Able to stay positive and never lose his cool, even when forums and chat rooms got hostile,

Wishnowski has never been scared to be honest about the development of the game.

"I think they love the underdog story and my openness in sharing it as it happens. This truly started as just some dumb ass talking a big game and taking on the big dogs. I never set out to make a decent little indie game," Wishnowski said. "Even as a clueless inexperienced knob, my goal was clear; I want to make the game we should have gotten after *No Mercy*. Anyone in the game industry could tell you this is virtually impossible. We may still only be maybe five percent of the way there, but it's been a hell of a fun ride that we share every week in a newsletter to our family of supporters. I hold nothing back and share all of the dirt and details of our journey and I think people really dig seeing what something like this really takes in real time. I don't think that a game development undertaking of this type and scope has ever been documented like this before. And for someone considering chasing a big supposedly impossible dream, the story of *Pro Wrestling X* is encouraging. It's a testament to what can be done if the only tangible thing you have going for you is heart and your will to get up every day and take even the smallest step forward and never quit."

Wishnowski credits his wife, Kimberly, for giving him the continued motivation to keep the project going through every misstep, hiccup and catastrophe. The development of the *Pro Wrestling X* franchise has never been an easy one for Wishnowski and Kimberly has been by his side the entire time. "She doesn't get enough credit for keeping the project going when times were tough. She would work overtime for days on end in order to pay crew members when funding was tight," Wishnowski said. "She would kick my ass and be my backbone so many times when I needed to confront ugly situations. A lot of people have put sweat equity and hours of their time and money into *Pro Wrestling X* but none come close to sacrificing what my wife has. She's my inspiration."
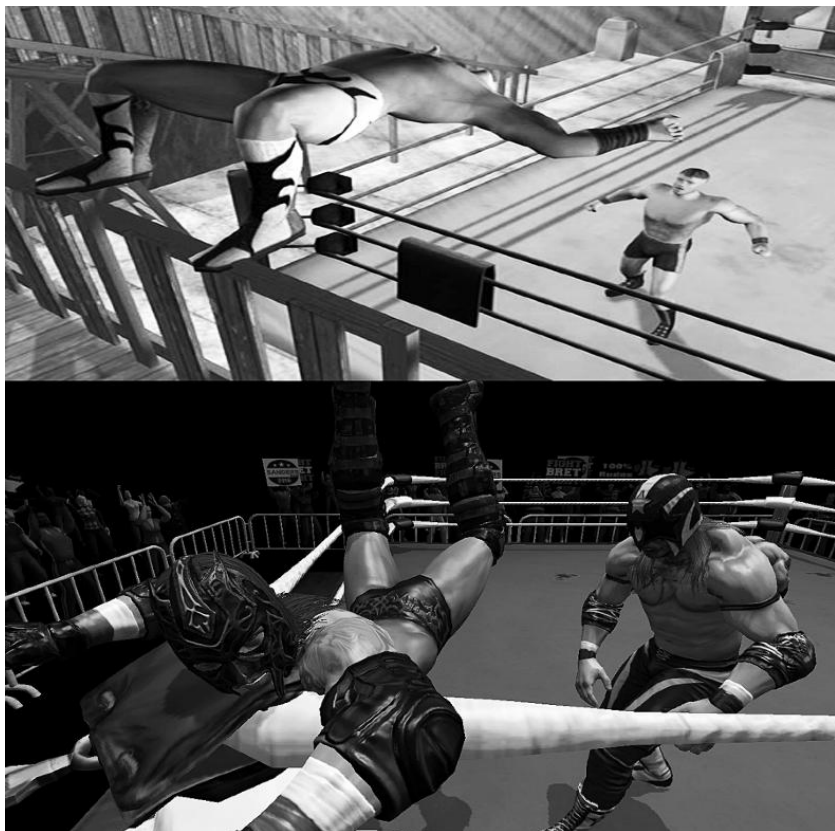
The look and feel of *Pro Wrestling X* has changed dramatically from 2007 (top) to now (bottom).

Wishnowski has no regrets to how *Pro Wrestling X* has changed him as a person either. Where most people would have given up and walked away, Wishnowski is able to take small positives as fuel and use them as motivation to complete what feels like a life-long dream. "I've learned so much in general that I often say I've earned an MBA the hard way and a black belt in bureaucracy," Wishnowski said. "But in terms of personal character, I've learned the simple value of hard work and optimism. Life will throw everything it has at you and give you countless legitimate reasons to quit. But if you believe in something and promise yourself you will never quit, you can overcome any obstacle. Luck and talent make a difference,

obviously, but nothing contributes more to your success than your daily hustle. And no one can stop you but you.

"Before *Pro Wrestling X*, I was terrified of confrontation. I would avoid it at all costs and give everyone the benefit of the doubt. I believed everyone was good at heart, meant well, and could be taken at their word. But I eventually learned a very hard lesson; some people are not good at heart, they did not wish me well and their word was worthless. You will run into people that genuinely wish to see you fail. People who will actively work to hurt you and even your family. I've learned that I can fight back and deal with people like this accordingly. I've dealt with people in the past who honestly threatened the livelihood of my crew and well-being of my family, assuming my distaste for confrontation equaled an unwillingness to fight back. In my early days, this may have even been true. But I've learned that when push comes to shove, I can and will hurt someone before they hurt me. It's an ugly side of business and entrepreneurship. But the quicker you accept it and learn when and how to neutralize threatening situations, the stronger you'll be."

At perhaps its strongest point in its history, *Pro Wrestling X* is closer to "release" than ever before. And for Wishnowski, the dream is within sight. Looking the part of a current-gen wrestling simulation, Wishnowski's game is fun, playable and with a team of developers and fans working on it every day, has potential to be more than a cult hit. It has the potential to be a game that fans of *No Mercy* have wanted want to play for almost 20 years. If Wishnowski has his way, they won't have to wait another decade to really enjoy the fruits of his labor either.

"The core game mechanics are all working well and you can have a fun exhibition match with a growing variety of moves and match types," Wishnowski said. "At the time of writing this, we are mere weeks away from delivering on all of our Kickstarter promises. Then we want to build out the game until it's robust enough to be called a proper 1.0 release. From there, we plan to just keep building the game bigger and better, never stopping. *Pro Wrestling X* will never be considered a 'finished' game. To me, it will always be a living growing platform that can always be improved upon. There will

always be new moves to add, new match types, new stories to tell. *Pro Wrestling X* has gifted my life with a wonderful adventure and given me an education that no school could ever offer. It's challenged me and helped me grow beyond my wildest expectations."

Mark Turmell, *WWF Wrestlemania*

The Arcade Game: Scotch and Treadmills

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In 1995, the Monday Night Wars of professional wrestling were just getting started. There was no Degeneration-X or nWo. The "Attitude" era that brought a more real-life sensibility to the "sport" hadn't begun yet either. In 1995, pro wrestling was cartoony, over the top and even more ridiculous than ever. As a result, it would only make sense that a video game based on that era of professional wrestling was just as zany as well.

Released in the arcades during this era, Mark Turmell and Sal DiVita's *WWF Wrestlemania: The Arcade Game* did the unthinkable— it leveraged the technology of the time, making for a beautiful game, while also managing to be fun and engaging for any gamer, regardless of their affinity for pro wrestling. Simply put, the character models and animations used in *WWF Wrestlemania: The Arcade Game* are still beautiful today. Even if you only have a passing fancy with wrestling, the characters in the game and their maneuvers are instantly recognizable. While graphics are only one part of the game's allure, they went a long way in capturing the essence of the brand. And while it was first a hit in the arcades and an even bigger success later as a port on several consoles including the PlayStation, Sega Genesis and Super Nintendo, it's one of the most important wrestling games of all time, even if it's not actually a wrestling game, at all.

Essentially a fighting game with wrestling characters, *WWF Wrestlemania: The Arcade Game* is not comparable to other arcade WWF games. And while comparing it to a pure simulation series the likes of the Human Entertainment string of *Fire Pro Wrestling* games isn't fair, it was easily the more popular of the two. That's simply a byproduct of its accessibility. Anyone can play the game and have a good time. Hardcore wrestling game fans will appreciate the fact

that you can perform signature and finishing moves, but overall, it's very much a combo and strike-based fighting game that in no way, shape, or form mirrors the type of wrestling you see on TV. While future WWF/E wrestling games the likes of *WWE All Stars* and even the 1993 16-bit *Saturday Night Slam Masters* tried to mirror the similar arcade action, Turmell and DiVita's take on a wrestling/fighting game hybrid is easily the best and hasn't been done the same by anyone else since. How the game evolved into the wild and raucous experience it became took time however.

"The game is very clean and crisp in terms of gameplay," Turmell, who now serves as Studio Manager and Senior Creative Director at the mobile powerhouse developer Zynga, said. "All of the tech for walking, alignment, attacks, hit boxes, were stellar for the time. So while it didn't exactly fit the wrestling formula, it had solid gameplay mechanics with very responsive controls."

The game's precision was initially a shock to the video game world. That was for the simple fact that wrestling games were far from pillars of gameplay precision at the time. Away from the *Fire Pro Wrestling* series, which was exclusive to Japan at the time, there wasn't that great, one-of-a-kind wrestling game in the United States. Fighting games, on the other hand, were taking off. From *Street Fighter* and *Mortal Kombat* to even the *Fatal Fury* and *Samurai Showdown* games, one-on-one fighting games were everywhere. Turmell and DiVita saw an opening that they could exploit. Nevertheless, the game had a much "safer" original concept.
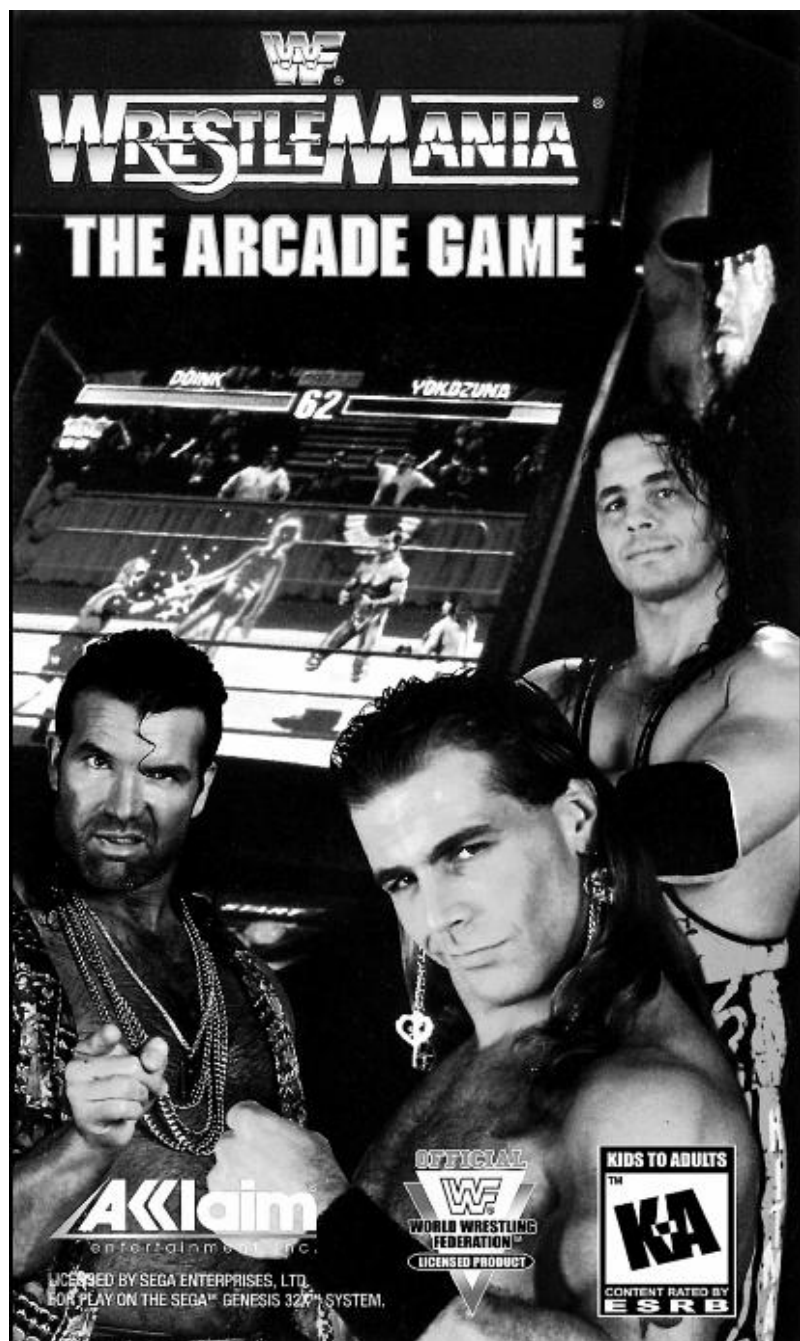
WWF Wrestlemania: The Arcade Game doesn't have the most

impressive roster, but every character is a special one that plays unique.

"It was planned to be just a generic wrestling game, because Sal DiVita and I loved the fighting genre, but we didn't want to compete with *Mortal Kombat*," Turmell said. "So wrestling was comparable from a player vs. player competition standpoint. After a couple of months, looking for local generic wrestling talent, we got a connection via Acclaim to grant coin-op rights to the WWF, and they'd secure the talent. It was exciting news."

Turmell and DiVita had no interest in making another *WWF Wrestlefest*, long-considered the standard of arcade grapplers however. Proof of this was easy to see. Some of the moves from the characters in the *WWF Wrestlemania: The Arcade Game* included hitting opponents with flaming fists, arms that turn into razor blades and mallets bonking opponents in the head. This was anything but your typical wrestling game. This was something much different. While the game eventually went on to become a PlayStation Greatest Hit and a success in the arcades, Turmell does see that some of the gameplay choices took away from the natural allure of the sport. "We failed to recognize how rich and compelling those gameplay mechanics actually were. We saw the bad tech, animations and visuals and chalked up their [*Wrestlefest*] success to the license alone," Turmell said. "Regardless, the hot games in arcades then were *Killer Instinct* and *Mortal Kombat*, so we erred on the side of making the game more a fighter than a wrestler. Still lots of great moves and action, but the format of 'best of three rounds' was a mistake, not a strategy to innovate."

For all of the small issues Turmell claims the game has, it hits the gamer hard in so many other places that the game is still frenetic in the ring and always fun. It also stretches the fighting game mold by forcing the player to fight more than one competitor at once. Always fast and competitive, it's got that pressure-cooker feel every great fighting game has, but it's unique in its own regard as well. While the presentation can't compare to the THQ/AKI wrestling games of the Nintendo 64 and today, thanks to 2K Sports' impressive work with the brand, in 1995, the work on *WWF*

Wrestlemania: The Arcade Game was totally ahead of its time. Featuring the themes of all of the wrestlers and voiceover work from Vince McMahon, Jerry Lawler and Howard Finkel, it managed to captivate gamers well before they landed their first attack. Able to challenge for the Intercontinental and WWF Championships, the game retained enough of the WWF license to appeal to the brand's massive fan base despite the fact that it was a fighting game. The game's Wrestlemania Challenge mode was also an intense one as the gamer had to take down all of the game's characters in a gauntlet-like, Royal Rumble setting. With four players on the screen at once, this mode was a favorite in the arcade and an even cooler one with friends on the home console versions.

And while the game only features eight WWE Superstars, Bret Hart, The Undertaker, Shawn Michaels, Razor Ramon, Bam Bam Bigelow, Yokozuna, Doink the Clown and Lex Luger, anyone who knows their wrasslin' can't argue with that lineup. Hart, Michaels, Ramon and Yoko are WWE Hall of Famers, while Luger, Bigelow and Taker will all be in there one day. While the remaining character, Doink the Clown lacks the wild legacy of his peers, he was a great heel in his day and ironically is the coolest character in the game to play with. From signature strikes and finishing moves and wacky finishers (Undertaker actually puts his opponents in caskets and buries them), the game is able to make every character play uniquely.

That attention to detail is one of the reasons why the game is still enjoyable to play today. While Turmell got most of the work on the game done with his hands, DiVita contributed his development and artistic talent and several other skills, all of which went a long way in making the game special. "Sal's great in lots of ways," Turmell said. "We initially partnered up during *NBA Jam* and his energy and wrestling talent was key to the quality of *Wrestlemania*. He actually made the talent work harder, because they saw him demonstrating their moves during the recording sessions. He's a great friend and we share a lot of war stories together."

With Turmell and DiVita's staunch work ethic, 16-hour days, seven days a week, they were able to bang the game out in about six months. However, development was different from your usual

fighting game since they wanted the characters to look and feel like their real-life counterparts. While DiVita was already getting his hands dirty, they were focused on getting the WWE Superstars featured in the game to provide the performances needed to give the game its signature feel. "Our days were initially focused on getting proper locomotion for wrestlers. How to record walking in eight directions, running, etc. After that was solved we focused on Doink the Clown's move set. He was the most refined. But each day focused on a new fighter and refining the engine. Every four-six weeks we'd have a new talent arrive for two days of filming and partying. Tons of fun."

That fun also led to some wild moments during the development cycle. With fighting games still somewhat in their infancy, *WWF Wrestlemania: The Arcade Game* was able to add levels of polish the genre had never seen before. "We had to buy an industrial size treadmill used for horse trainers or something, to give us all the directional walk cycle art," Turmell said. "Testing it, trying to side step and walk backwards, was always full of drama. For us testing and the talent! DiVita and Josh Tsui got suplexed many a time by the wrestlers, and injuries were always a breath away. Scary, but exhilarating."

Working with WWE Superstars for weeks at a time during the duration of the development process gave Turmell and his team some once-in-a-lifetime encounters with some of the greats in the wrasslin' business. No other previous games in the WWE library were able to leverage the characters in their games as well as *WWF Wrestlemania: The Arcade Game*. Some of Turmell's stories are proof of that. "The talent was always a highlight. Big drinkers and partiers," Turmell said. "Undertaker refused to work until he had a bottle of Jack Daniels. Yokozuna and Mr. Fuji took us out and drank Sal under the table. Mr. Perfect was 0–3 in arriving to airport. We'd go, wait, and he'd never show. He didn't get into the game. Shawn Michaels was a pro, as was Bret Hart. Each recording session was a blast, but the focus was always on trying to get them to do more moves."

But while the game was an iconic arcade romp and its console ports were just as successful, thanks in part to the level of commitment

from the WWE Superstars involved and the development team, the impact the game had on the industry and the future of Turmell and his team's careers has ensured its place as an important entry in video game history. "It was a pretty small team, made by same group that generated *NBA Jam* and *NFL Blitz*," Turmell said. "The techniques we used there became the cornerstone of *NFL Blitz* and other games, which needed player to player alignment in 3D space. And the same learnings from that game are still being applied today. I still work with some of the same folks while making match-3 games at Zynga."

And while Turmell admitted that the game wasn't as successful as *NBA Jam* and even lacked some of the extra bells and whistles, in terms of secret finishing moves the team didn't have time to add, it's still a game that seamlessly blended the fighting genre and the world of professional wrestling. With a roster that consists of eight of the most entertaining wrestlers of all time and a wild gameplay engine, it's a fighting game that managed to innovate and forced gamers to take games based on wrestling seriously. "It was a unique fast-paced title with lightning fast moves," Turmell said. "Fans love to see the talent in a game, especially when they're performing the interesting variety of moves we implemented. Fun gameplay, unique to genre. Great tech. Players saw their favorite characters do something they've never seen before. It certainly stands out as a unique take on wrestling video games."

John Tobias, *Mortal Kombat*

Enter the Fatality

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Finish Him! Two epic words that cemented the work of Ed Boon, John Tobias and the rest of the team behind Williams' *Mortal Kombat* in pop culture lore forever. However, thanks to a plethora of gore and fatalities that provided unparalleled fun—and controversy, the game was nearly taken off of store shelves before it became iconic.

Mortal Kombat isn't all about blood and guts though. A fantastical adventure with unique characters, it was a wild fighting game that gave birth to a new era of visual prowess in the medium. Characters didn't have to look like cartoons anymore. And they certainly didn't have to be tiny. Simply put, if you grew up playing games the likes of *Adventure, Haunted House* or even *Super Mario Bros.* in the '80s, the humongous size of the characters alone in *Mortal Kombat* was enough to get you excited. In the end, the team told the world they were ready to get big—or go home.

In *Mortal Kombat,* everything just came together perfectly. Although the blood and guts gets all the attention, the attention to visual realism, plot and gameplay innovation is just as important as the vicious fighting that takes place. On its own merits, it's a classic that gobbled up quarters in arcades and sold millions of copies on home consoles. Spawning dozens of sequels, spin-offs, comics and films, it's easily one of the most successful fighting game franchises of all-time.

Boon and Tobias' road to the series was far from straight-ahead however. Although they both had an affinity for pop culture, this was a time when pitching a one-on-one fighting game was a rarity. Games like *Mortal Kombat* didn't exist. Prior to *Mortal Kombat,* Tobias was known for his work on the *Smash TV* series with Mark

Turmell before getting involved with *Mortal Kombat*. Boon, on the other hand, was creating pinball games.

"I was 19 when I was hired at Williams/Bally/Midway straight out of art school, but I had worked professionally for a couple of years as a comic book illustrator," Tobias said. "Fortunately, I was a video game junky and arcade rat growing up, so I knew what I liked and what I thought I could provide. I saw some success with *Smash TV*, but it took a few years before we achieved the success that we did with *Mortal Kombat*. At that age, I don't know that many people are ready for that kind of success, but the work involved was so intense that it kept me grounded in the reality of production."

Although in his twenties when *Mortal Kombat* hit the arcades, Tobias was far from a stranger in the industry. Already working with a great the likes of Turmell, Tobias got to rub shoulders with other greats as well. As a result, Tobias sees his time on *Smash TV* as a pivotal one in the development of his career. "Mark Turmell was heading up a new project that was an update to *Robotron* and was responsible for hiring me," Tobias said. "The great Eugene Jarvis became involved with what became *Smash TV* a little later on during its development. Both of those guys were huge influences on me in terms of their work ethic and passion for games. I still carry those values today.

Mortal Kombat changed the fighting genre forever thanks to over the top gore and a fantasy story inspired by some of the greatest action films of all time.

"I looked at Eugene as this god of the industry, although he never carried himself that way. He always made himself accessible, which was very generous considering I was a 19-year-old kid. The department was so small that management gave us creative freedom to kind of do whatever we wanted and they obviously had plenty of faith in guys like Mark and Eugene. I think that freedom played a large part in the department's past and future successes."

During the '80s and '90s, you couldn't go to an arcade without seeing a Williams/Bally/Midway machine. From pinball games to classic arcade romps, the company was innovative and successful to say the least. Their idea of using digitized graphics, rather than pixel-based sprites in the *Mortal Kombat* games was one of the foundations for the visual look of the series, but Boon and Tobias took it to another level with their love of pop culture, particularly film. After the idea of a Jean-Claude Van Damme–licensed fighting game fell through (Van Damme ironically went on to play Guile in the *Street Fighter* film and *Street Fighter: The Movie* video game), the

two began to flex their creative muscles.

Going for something completely different than what had been done previously in the fighting genre, Tobias and Boon, ironically created a game that is the polar opposite of Capcom's iconic fighting series. Although loosely inspired by the 1984 arcade game *Karate Champ* and Tobias' love of martial arts flicks the likes of *Big Trouble in Little China* and *Enter the Dragon*, *Mortal Kombat* definitely took on a life of its own. It's crazy to think that decades later *Street Fighter* and *Mortal Kombat* still represent the Yin and Yang of the fighting game genre.

However, the game's aesthetics and almost fantasy plot were just one part of the puzzle. The digitized graphics and Tobias' idea of having the characters in the game be as large as possible were just a starting point for *Mortal Kombat*. Over time, the gameplay evolved past standard fighting game fare. Developed before Capcom's *Street Fighter II* hit the arcade scene, Tobias and Boon were working with a blank canvas. Make no mistake, both teams were redefining what a fighting game could or should be. In the case of *Mortal Kombat* however, they were using an entirely different brush. The combination of realistic graphics and wild attacks like fireballs, lighting and ice shards made it accessible to both kids and adults. At the same time, the team didn't know what they had early on.

"The majority of our development process was spent sitting at a desk in front of a computer for long hours every day. Not too different than it is today," Tobias said. "Even on a game like *Mortal Kombat* where we captured live actors in a studio, that portion of work was dwarfed by the rest of the software development process. I think it became more exciting once the games were playable and we began to get a sense of what the finished product was going to be like. Certainly, the most excitement came when the games finally made it into the arcade." But way before the game was released in arcades, Boon and Tobias knew that *Mortal Kombat* was missing something. What it ultimately got to fill the gameplay void not only changed the series, but the video game industry as well.

"There was an odd lull at the end of a match in *Mortal Kombat* and we were looking to give the winning player a chance to kind of put a punctuation on their victory. That's how it started," Tobias said.

"A free shot for the winner as the loser was incapacitated. But, of course, that gave way to the 'What if's?' We originally had planned for our end boss character, Shang Tsung, to decapitate the player's character in a single player match. But, we ended up using the frames to give the players a chance to do it to each other in a one-on-one match. Once we added that, we knew there was no going back and that was the birth of *Mortal Kombat's* Fatalities."

While fatalities changed the fate of the series and the fighting genre forever, *Mortal Kombat* is finely-layered. Although it's not cute like Mario or Sonic, it's got a look and feel that caters to everyone. Kids wanted to play it because it felt naughty and adults loved that it pulled no punches. That's only one part of its allure though. The game's story, in its essence, is about anything but brutality. A wild adventure with the future of the world in the balance, *Mortal Kombat* is about saving humanity from an insane force of destruction. It's all about the characters involved in the struggle as well. Although the first game only featured seven characters available from the start of the game, they were all memorable and continue to play an important role in the future of the series almost 25 years later. Without this iconic assortment of faces, it's possible *Mortal Kombat* isn't nearly as successful. Ultimately, it's almost like a Greek myth. From the clear good characters like Raiden, Liu Kang and Sonya Blade and the evil force of Shang Tsung and the virtually indestructible Goro, to the uncertainty of the ninjas Sub-Zero and Scorpion, *Mortal Kombat's* plot is far from linear. It's so easy to be pulled in a variety of directions. "I love all my children," Tobias said. "But if I had to pick it would be one of the most visually iconic characters like Scorpion, Sub-Zero, or Goro."

While the violence definitely played a role in its initial success, the attention to character development and the widening of the world in future games made sure the series was here to stay. With over 30 characters now, the original *Mortal Kombat* feels like a shell of the bloody soap opera it is now. A mega hit in the arcades, *Mortal Kombat* was eventually ported to a bevy of systems, including the Sega Genesis and Super Nintendo. Once there, it became a colossal success, but drew the ire of the United States government along side other violent games the likes of *Doom*, *Night Trap* and *Lethal Enforcers*, the other games responsible for the creation of the ESRB

rating system. While *Night Trap* never garnered a sequel and was taken off shelves entirely for a time in the United States, *Lethal Enforcers* was a success and spawned a sequel, but in no way, shape, or form could be compared to the monster hit that *Mortal Kombat* and its predecessors became. The same can be said for the *Doom* series, which has sold over 10 million combined units and has its own film. "*Mortal Kombat* survived because outside of the attention and pop culture hype, it was fun to play and the sequels continued to improve the core of what made the original so much fun," Tobias said.

John Tobias' background in the comic book industry played a key role in the look of the characters in *Mortal Kombat*.

Unlike *Night Trap* and even *Lethal Enforcers*, the *Mortal Kombat* series also had fans that fought for it. They played it in arcades and

on consoles—in droves. Over 20 years after its original release, the game is still one of the most popular video game series of all time. From the original digitized graphics to crossovers with DC Comics, the series has some of the most dedicated fan bases in all of gaming. "It's amazing how passionate fans still are about the original arcade games. They've combed through every pixel and line of code," Tobias said. "I think because of that, everything there is to know about the original *Mortal Kombat* games is pretty much known."

Although Tobias left the series after *Mortal Kombat 4*, he's gone on to work on a variety of different games including *Tao Feng: Fist of the Lotus* and as an employee of mobile games giant Zynga, continues to influence gamers of all shapes and sizes. The fact that he played an influential role in the *Mortal Kombat* series however, which has sold over 32 million copies as a series, cements his place in video game history. "I was part of something that brought fun and joy to a lot of people," Tobias said. "That will always feel good."

Looking back on his career, the humble Tobias believes the game's success had a lot to do with the time it was released. "It was created back in a day when as developers we were able to create something special with a small group of people and no outside interference," Tobias said. "No one telling us how to do our jobs. No focus groups or marketing departments. Just programmers, artists and a black box that got wheeled into an arcade. There is rarely such a pure connection between developer and player and that being the foundation of the series is one reason why people are still in love with it.

"We were special in what we brought to the game's development, but certainly we were also lucky for being in the right place at the right time. The technology and hardware we used to develop the original *Mortal Kombat* was a product of the software and mechanical engineers who created it. Ed Boon and myself just happened to be wrapping up our previous games and we both had a desire to create a one on one fighting game. I happened to be a kung-fu movie fanatic and Ed was a genius programmer. Management was looking for a new game quickly and we were dumb enough to agree to do it. The rest is history."

With all of the success and controversy behind it over the years, *Mortal Kombat* has a legacy that can never be denied. However, that won't stop Tobias from having a special and specific way he'd like his time with the franchise to be remembered.

"*Mortal Kombat* was born at a time when games were transitioning from a form of entertainment geared toward kids to one that encompassed older players as well," Tobias said. "I think we recognized that. People who played the game did so because it was fun to play, but they may have initially been drawn to it because of its pop culture notoriety as being ultra-violent. Even the newer iterations of the game today continue to take advantage of that notoriety by not backing away from the ultra-violent aspect. They just make sure to continue to back it up with a quality game."

Michael Brook, *NHLPA '93*

Fighting for Fun Before "If It's in the Game, It's in the Game"

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Long before Electronic Arts trademarked the slogan, "If it's in the game, it's in the game," the mega publisher's sports titles were about much more than realism. While they were always about providing a realistic experience, there was always an effort to simultaneously maintain a massively fun environment. While the Madden series is often at the forefront of EA's legacy, their hockey games have been just as pivotal to their longevity as one of the most celebrated companies in all of gaming. And in terms of EA's greatest achievements on the ice, *NHL '94* is often considered EA Sports' landmark hockey title—and for good reason. It's the one that set the tone for over 20 years of iconic games. With the addition of the one-timer (for non-hockey fans, that's when a player can shoot the puck when passed to him, without stopping it) and the updates to the already awesome gameplay formula from previous games in the series, *NHL '94* is an undoubted classic. And it's still fun to play today. So much so that the source code for the game has been altered for years by amateur game developers who have updated the game's rosters and features. Simply put, in terms of EA's legendary hockey series, the fun never ends.

But *NHLPA '93*, the first pro hockey video game to feature real players' names and pictures and every NHL team (well, at least, the name of the city they played in) is just as important to Electronic Arts' pond hockey legacy as the iconic *NHL '94*. Without its success, there may have never been an *NHL '94*. However, the road from the original *NHL Hockey* to *NHLPA '93* and eventually *NHL '94* was a wild one, full of politics, handshake deals and compromises that make each game unique from one another. However, with more grit than *NHL '94* and more gameplay innovation than the original *NHL Hockey*, *NHLPA '93* is the most unique experience of the three.

Despite having the killer development team of Michael Brook, Scott Orr, Richard Hilleman and Jim Simmons and the tremendous success with their first game, *NHL Hockey*, the series was not without its controversy. As the first hockey video game to ever feature the ratings of professional players, *NHLPA '93* caused quite a stir when originally released, as some players weren't too happy with some of their ratings. Bringing in Winnipeg Jets scout and former Soviet sports writer Igor Kuperman to do the game's ratings, EA Sports was the first video game publisher that had to directly deal with players and a league for their games. While Sega was all about putting mega athletes on the covers of their games, à la *Buster Douglas Boxing, Mario Lemieux Hockey, Tommy Lasorda Baseball* and *Pat Riley Basketball* (all awful games that did little to advance their respective genres), EA, even with having coaching legends the likes of John Madden and Earl Weaver on the covers of their football and baseball games, saw the allure of having real players and real teams. Well before they had proper licenses for their games, EA had the correct city names, team colors and the right numbers for all the players on the teams in their games. Even back then, if it was in the real game, it was in their game. But so much authenticity came with a price. Imagine having to explain to former Toronto Maple Leafs tough guy Ken Baumgartner, a dude with just 13 goals and 2,242 penalty minutes in 696 career games, why he was rated a 0 in intelligence. That's exactly what Michael Brook, the producer and designer of iconic EA Sports titles the likes of *Madden '92, NHL Hockey, NHLPA '93* and *NHL '94* had to do. To make matters worse, Baumgartner's overall rating in the game was a 2 (second only to the Tampa Bay Lightning's Shawn Chambers, who was rated a 1), out of a 100.

"I was sitting down at the time and looking up at him so that certainly didn't help," Brook said. "As he said it, it kind of dawned on me that these guys are real people. They're more than just names and statistics or guys on TV that I watched. He said it in a real gentle way because he knew we were still getting to know all the players. I'm just happy it wasn't Tie Domi. There were probably guys who would have reacted differently. My response to him was that the attribute shouldn't have been called intelligence.

"The NHLPA's response was a bit different. Ted Saskin [future

NHLPA president] said that from then on, the lowest rating in the game was to be a 60. I told them that made no sense because they were all NHL players and that it should be zero to 100. Ted just said, 'Well that may be true, but no player can have a rating lower than 60 from here on out.' So we had to go and change the rating system because I guess 60 is passing. From a computer programmers standpoint it made no sense, but from an optics perspective I can appreciate it."
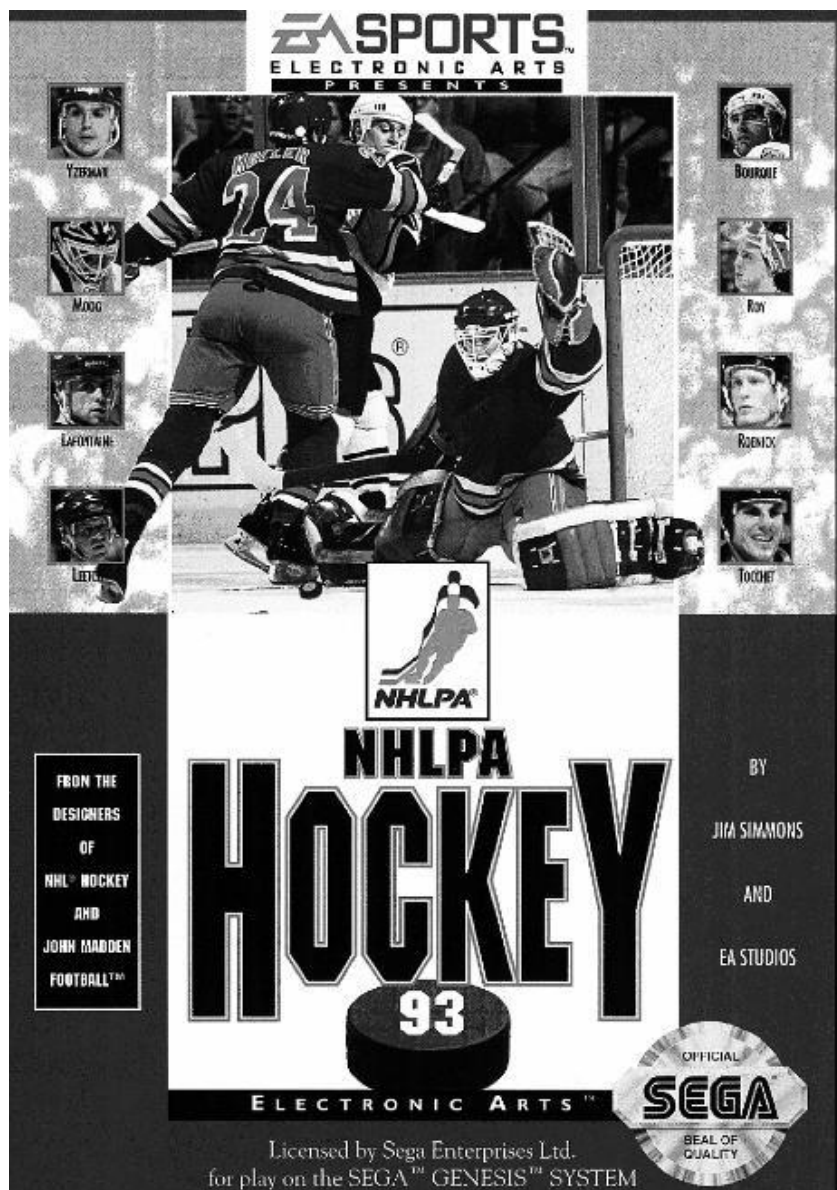
NHLPA '93 **is one of the most influential hockey games ever created.**

While some players were naturally upset about their ratings, Brook

said it made a big difference in determining the feel of the game. With 16 different attributes to be rated within their physics engine, every player played differently. Up until that point, no other hockey game had ever done that before. "I showed the game to Los Angeles Kings' head coach Barry Melrose and he said 'Wow, I can really see these players. They're playing the way they really do,'" said Brook. "Because we had things like awareness, players were in different places on the ice and to have someone like Barry Melrose see that and say wow, that things were really looking good, from a ratings standpoint and a hockey video game perspective, I thought we were really on the right track."

Michael Brook is a founding member of the EA Sports brand.

A graduate of the Stanford Business School, Brook had a mind for business and gaming. By the time he was 24, he was working for Electronic Arts full-time and after he left the company to pursue other interests in Amsterdam, Brook returned in 1990 to help design and produce *John Madden Football*, *Madden '92*, *Earl Weaver Baseball II* and of course, *NHL Hockey*. One of the main voices at EA that believed a sports title should be released every year to reflect the new season, Brook is an EA Sports founding father and video game pioneer that influenced the *NHL*, *Madden* and the game script that eventually gave birth to the *FIFA* series, in a plethora of ways. More than a passion project, Brook was the guy that showed both *NHL Hockey* and *NHLPA '93* to the league and its players before it was released. He was an ambassador for the industry to society. As a matter of fact, it was on one of those occasions that the fate of the series was put in serious jeopardy.

"Time Warner [who was in charge of maintaining the NHL's licenses at the time] approved the game and we took it to the 1991 Stanley Cup Finals," said Brook. "We were invited by the NHL to show the game at the media center. So it was the introduction of the game to the press and they really ate it up. We had a couple of monitors set up and the media eventually found a way to incite fights. In the original game, anyone could get in a fight, including Wayne Gretzky. The fighting model was pretty realistic. You could incite fights by hitting other players and cheap-shotting them and stuff like that so it wasn't really difficult to start a fight.

"Some of the reporters found a way to get Wayne Gretzky in a fight. You know Wayne Gretzky doesn't get into fights, but we hadn't gotten to that level of realism yet. Unfortunately, that monitor was right in front of the NHL brass, John Ziegler, the NHL's commissioner, and a bunch of other guys. They saw this and pretty much freaked out. We got back from the Stanley Cup Finals and there's basically a message from the NHL saying that they couldn't approve this game. So we had to tell them that we already invested $10 million in cartridges and you've already approved it. They backed off of that, but then they said they were going to cancel the

license for the future if we kept fighting in the game."

EA Sports could deal with things like players and individual ratings, but a league? That was a bit tougher. *NHL Hockey* pissed off the NHL so badly that they refused to work with Electronic Arts on their next game (which turned out to be *NHLPA '93*) but Brook and his team knew the game was better with fighting in it. Fueled by the success of the John Madden series on the Sega Genesis, EA knew they didn't need a license from the league or the Player's Association to sell or be successful. There was never a choice to sacrifice all of their work to make a huge sports league happy. The plan was always to stick to their guns and stand by the game they created. As a kid that grew up watching the Broad Street Bullies in Philadelphia during the '70s, Brook did not want to take fighting out of the game. He didn't for *NHL Hockey* and he wouldn't for *NHLPA '93*. In the end, Brook and his team realized that fans cared more about fun and fisticuffs than the names of actual NHL teams and their logos. For anyone that has seen the 1996 film *Swingers*, which features a young Vince Vaughn and Jon Favreau, playing *NHLPA '93*—that's exactly the audience EA was looking to entertain. They knew what fans wanted.

But with the relationship between EA and the NHL now a rocky one, despite the fact that *NHL Hockey* sold in the six figures, Brook and his team had to come up with a licensing solution for their next game, scheduled for release in the Fall of 1992. The one they came up with helped it continue to develop as a franchise. Going instead to the National Hockey League's Players Association to give the new game the added legitimacy they craved in an effort to promote the realism and authenticity of their product, EA secured the right to use real players' names and pictures in their game (which *NHL Hockey* did not) but could not use real team names or logos (which *NHL Hockey* did). The end result of all of this was a blessing in disguise. Although EA didn't have the NHL's permission to use real teams for the game, they got to make a game that they knew would sell and continue the series' young but sturdy legacy of providing fans with fun games that also mimicked what they saw on the ice.

Luckily for EA, the relationship between the NHL and its Players Association was just as strained, opening the door for the publisher

and the NHLPA to make a deal. When Brook originally approached the NHL and the NHLPA for a licensing agreement for *NHL Hockey*, he was told by the Joint Licensing Agent at Time Warner there were problems with the NHLPA that wouldn't allow EA to secure a deal with them, but the NHL was happy to oblige them. As said before, it wasn't the end of the world as EA planned then, similarly to what they did with the Madden games, to use the uniform numbers of the players on each team and not their names. But after the fracas with the NHL due to the in-game fighting in *NHL Hockey,* EA went to the Players Association and the truth about what really happened to the licensing deal for *NHL Hockey* came out. They then found themselves in the middle of a grueling war that played a role in the 1992 NHL players strike.

"So I reached out to the NHL Players Association and I said I don't know why we didn't get this license last year, but would you allow us to have player names in the game and keep fighting in the game and we'll pay you the licensing fee we were going to pay the NHL," Brook said. "I had gone to Toronto and I had met with Ted Saskin, who, at the time was the head of licensing and after I had described what happened, he brought in Bob Goodenow, the executive director, into the room. They confirmed that Time Warner had never contacted the NHL Players Association about our licensing opportunity [for the first game]. They [Time Warner] had basically just given it all to the NHL. There was a lawsuit going on because we weren't the only people this had happened to. To make a long story short, they said sure, we could keep fighting in the game as long as it's realistic. That's how the game became *NHLPA '93*."

With fighting now front and center in *NHLPA '93* (which also sold in the seven figures for EA; Brook comfortably estimates between 1.5 and two million combined copies on the Sega Genesis and Super Nintendo), it stands as uniquely different from future games. It's also a reminder of Brook and his team's central notion from day one, that their games were always meant to be realistic, but fun too. While the Player's Association agreed to grant the license if fighting in the game was at the league average of 1.5 fights a game and the chances of a player like Gretzky getting in a fight were eliminated, Brook and his team even worked around that.

"What realistic meant in terms of the licensing deal was the average of fights on an NHL level, so they wanted it tuned to that level," Brook said. "So I'd send them a build to test and they'd say, 'Yeah, there's 1.5 fights a game.' The only thing was after the whistle blew, the testers would stop playing. But any video gamer knows that after the whistle blows, you still have control of the player and if you can take someone out, you'll do it every time. That's why there ended up being a lot more than 1.5 fights on average per game. The testers that played the game for licensing purposes played hockey the way you're supposed to play hockey. Not the way you're supposed to play a hockey video game."

With the added violence—and the focus on the NHLPA license, the legacy of *NHLPA '93* is something that National Hockey League was not proud of. "They were pissed," Brook said of the NHL. "Because *NHLPA '93* was a bigger seller than *NHL Hockey*. This was an NHLPA game and at that time, there were very few products that were NHLPA only and didn't have an NHL license."

A year later, *NHL '94* had both the league and the Players Association license. With one-timers added and continued efforts to improve the presentation, which included player photos, hot and cold streaks and organ music from every arena in the league, the legend was born. But at a price. Fighting was completely eliminated from the game. But even in the face of that letdown, *NHL '94* was still a wonderful game that continued the legacy of the series. What is often understated however is what *NHL Hockey* and more importantly, *NHLPA '93* did to change the hockey genre forever. Away from improving upon the gameplay of *NHL Hockey* and adding real players and ratings, the presentation of *NHLPA '93*, which included highlights from other games and pre-game commentary by national radio host Ron Barr, was vastly improved over *NHL Hockey.* It set the groundwork for the series to follow in the years ahead.

"It was part of the fantasy that it wasn't just a video game," said Brook. "That you could turn on the TV and see these players and that you could listen to the radio and hear Ron Barr talking about the sport."

Before the NHL series, games the likes of *Ice Hockey* and *Blades of*

Steel set the home console standard. Although both were fun to play and are classics in their own right, they lacked the realism and gameplay depth some fans craved. Competition from Nintendo and third party developers in the form of *NHL Stanley Cup*, *Pro Sport Hockey*, *Brett Hull Hockey* and even *Hit the Ice* all failed to hit the balance that Electronic Arts did with *NHLPA '93*. Taking the gameplay elements of *NHL Hockey* and adding real players' names and pictures, *NHLPA '93* could be either an offensive machine, with offsides and penalties turned off and no line changes (which allows you to keep your favorite players on the ice for the entire game) or a realistic hockey-sim with everything a hardcore fan could want. No other game on the market at that time could do that. You could even argue that today. That duality made it accessible to people who didn't watch the sport (many people to this day count EA's NHL hockey games as their introduction to the sport) and to hardcore hockey fans. That, Brook said, was the game's mission in development, but he never thought of any lasting impact the game would or could ever possibly have.

"I'm so amazed that people are still affected by this game," Brook said. "I think it's kind of a timepiece now and that people can go back and be reminded of the players and the pleasant memories they had during that time. I'm glad we're able to do that. But we never thought while making this game that people would be playing this game for longer than a year."

Craig Broadbooks, *NHL FaceOff*

A Christmas Story

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Every empire eventually has to face a challenge before it can be considered unstoppable. One that defines its very existence and either cements it among the gods or leaves it in the dust, forever forgotten. While five years isn't a long period of time in human years, in the video game industry, it's almost like the entire Hundred Years' War. In just five years, gaming monopolies can fall, only to be replaced by new ones. In the console wars after the fall of the 16-Bit consoles, the Sony PlayStation, Nintendo 64 and Sega Saturn waged an even fiercer battle. While the Saturn and N64 had their moments, the Sony PlayStation, powered by a ton of first and third party support, established themselves as giants. Ironically, they also managed to make themselves the king of hockey games for a period of nearly three years with *NHL FaceOff*, forcing Electronic Arts to take an engine that brought them unparalleled success on the Super Nintendo and Sega Genesis, back to formula.

NHL FaceOff was the first great hockey game, not only on the Sony PlayStation, but of the 32-Bit era. The digitized visuals lacked the polish of today and could even be considered crude by today's standards, but they were beautiful in 1996. Featuring 2D sprites, but in a completely 3D world, it looked futuristic by the standards of the time and from the standard top-down view, *NHL FaceOff* felt more like real hockey than any other game before it. Add in a slew of other camera angles and it was revolutionary from a visual standpoint. The icon in the upper right-hand corner that told the user who had the puck was different from the *NHL* series and although a small innovation, made the game's presentation a bit unique as well. Unlike the popular EA Sports hockey games of the time, there was no Ron Barr giving scouting reports before games. There were no hot or cold streaks either. And while it lacked some

of the bells and whistles of the *NHL* series, it was a smooth and intense game of hockey, that was always fun. The audio, which featured CD-quality crowd noise that crescendoed beautifully after every hit and goal, made you feel like a part of the action. It is, without a doubt, one of Sony's biggest successes in its early years in the gaming industry and a driving force in the continued innovation of the hockey video game genre.

However, *NHL FaceOff*, a signature title in the early PlayStation library, was indeed a race against time and a game that was as hectic and stressful an endeavor in development as any game could be. With the United States launch of the original PlayStation on September 9, 1995, the team at Sony Computer Entertainment knew they needed to get a hockey game out as soon as possible. Unable to meet EA Sports' "quality standards," *NHL 96* never made it onto the original PlayStation. Instead, *NHL 96* was released on the now older—and less sexy Super Nintendo and Sega Genesis consoles. You could even make the argument that all of EA Sports games, including the venerable Madden series, weren't ready to make the jump from 16-bit, cartridge-based consoles to more advanced hardware the likes of the Sega Saturn and PlayStation. This gave the team at Sony Computer Entertainment one huge opportunity to get gamers away from Electronic Arts and onto their brand. Gamers who wanted their hockey fix had no other game to play but *NHL FaceOff* in 1995. And to Sony's benefit, the original *FaceOff* got it done.

This is all history now, though. This is the way we know things and not as they were back in 1995. That was a time when Sony thought they were in a race against the clock, not only against Electronic Arts' mega-franchise, but for the legitimacy of the original PlayStation console as well. Hockey games have always been solid sellers, especially thanks to EA's games, but Sony needed games to help launch the console for the Christmas rush. They also needed to send a clear message that they had immersive original titles, in the vein of Sega and Nintendo, that gave them their own identity. Taking on a company the likes of Electronic Arts, a publisher that was releasing games for their new console as well, could get tricky and would in the future, but in 1995, the team behind *NHL FaceOff* were out to prove that they could hang with anyone in the industry.

"Development on the original *NHL FaceOff* was hectic, furious, stressful, and relentless," Craig Broadbooks, one of the lead programmers on *NHL FaceOff*, said. "We had been given a seemingly herculean task to get a game up, running, and delivered by Christmas. We worked 80+ hour weeks for months and months to get it out.

NHL FaceOff **was the first hockey game on the original Sony PlayStation.**

"At the time we didn't know if EA would have their game out or not. We were of the mindset that we absolutely had to make Christmas regardless. It was the only objective we could have if you think about it. Remember EA was the big dog. Imagine if EA got their game out and we didn't, then we would never be able to compete from that point forward. If both we and EA got our games out, then we would have competed at least. Then there was the best case for us, where we got our game out and EA did not. Luckily for us, that's what happened and we enjoyed the success and small accolades that came with that accomplishment. With that objective, there was a tremendous amount of pressure on us both by the management and the development team."

Essentially a founding father of Sony Computer Entertainment, Broadbooks ironically was once on the other side of the curtain. Although he never worked for Electronic Arts and never worked on a hockey game while at other companies besides Sony, he was almost destined to one day design a game of virtual puck. "I was working as a programmer for a crummy software company called RGI in the Mission Valley area of San Diego," Broadbooks said. "They did some educational assessment software used by the military. My boss John Rehling, who hired me, left the company about six months after I started to work for a company called Park Place Productions in Carlsbad, CA. For those unfamiliar with Park Place Productions, they were contracted by EA to do the original *John Madden Football*, and I believe they also did the original *NHL Hockey* game. At any rate, several months after John started at Park Place Productions he recruited me to work there as well. So my first job in the game industry was at Park Place Productions in the fall of '93. I worked on two Windows games: *Beat the House* and *Wheel of Fortune*. That didn't last long, though. I didn't know at the time, but Park Place Productions was not doing well financially and at the end of '93, the company collapsed infamously with half of the workforce being 'lured' away by Sony in what was the start of the SCEA (called Sony Imagesoft at the time) San Diego Division. I was one of the lucky folks who was part of that Sony founding group."

While at Sony Imagesoft, Broadbooks worked on the Sega CD, Super

Nintendo and Genesis versions of *ESPN National Hockey Night*, a decent, but promising officially licensed NHL game, that felt like a better version of the NES classic *Blades of Steel*, as it utilized the same side-view. With commentary from ESPN analyst Bill Clement on the Sega CD version, the use of video clips from actual NHL games and cool graphical elements such as the reflection of advertisements from the boards on the ice and glaring goal horns, it was obvious that hockey games were getting far more complex and that the audience, which was happy with a hybrid arcade experience just a few years prior on 16-bit consoles, now wanted more. Now a year after that experience, Broadbooks and pieces of that team needed to take some of the lessons learned from *ESPN National Hockey Night* and turn it up a notch. With a tight window for release, they could afford no foul-ups. Comprised of fellow *ESPN Hockey Night* developers, Broadbooks and Paula Willman, as well as future *MLB The Show* and *Mark of Kri* programmer Joe Wilkerson and *Frantix* developer Tom Braski, *NHL FaceOff* had a hungry team that was looking to make a game that almost forced gamers to buy it.

"I think what made the team special was that you had an entire group of people all who shared the desire and drive to get this game out for Christmas regardless of how difficult the task was," Broadbooks said. "We were all pretty young and saw this as our chance to make a mark. It was a real testament to what a group of people who share a common goal and work ethic can do. It was an impressive effort. I think we all believed that we could get the game out. That said, it felt that all was in jeopardy for almost the entire development cycle. There was an urgency that loomed at all times and you never felt you could let up at all or we wouldn't make it."

And while the development schedule for *NHL FaceOff* was tough, the team found ways to keep morale high and push through. They even found small windows of fun and laughter. "The producer on *NHL FaceOff* at the time was John Smedley who you may know from Sony Online/Everquest/etc," Broadbooks said. "This story is a little bit at his expense, but I'm sure he'll chuckle about it. One day, John came into my office to let me know about some strange audio bug he was hearing from time to time and he was determined to track it down. Well, after my initial concern I started looking into it

with some of the other team members and it dawned on us that what he was hearing was actually sound from a little easter egg we had put in the game. We had a small section of animating crowd that was actually three or four of us from the development team. This was in the first row and it may have only been in one arena or something. What would happen is that if you skated with the puck by the boards in front of where our animating first row personas were, occasionally we would stand up and bang on the glass and we would play some audio of the banging. This was pretty subtle and unless you were in one of the up close cameras you would likely not see it and the sound volume was scaled with distance, so it was very faint in some of the farther away cameras. Well that was what John was hearing, but very faint from the far camera he was using. Instead of telling John about it, we let him continue looking into it, much to our delight. I think it took him about a day to figure it out while we all had a little smirk on our faces and occasionally would venture by his office with an 'any luck, John?'"

That didn't mean that there weren't times when the tables were turned. "Remember that this game was developed in the dark ages before the internet," Broadbooks said. "We had QA teams both in San Diego and also up in Foster City. Every day the Foster City group would fax (yes, I said fax) the bug list to us in San Diego. We had producer types that would manage/consolidate the bug lists. The QA guys always videotaped their test sessions on VHS tape (yes, VHS). This was often helpful tracking down difficult bugs. Well, when we were in the depths of testing and working crazy hours and one of the Foster City testers finds a 'hole' in the goalie. This was basically a way you could score every time with the right technique. He proceeds to send us a tape of his technique. So we get this tape and see that what he was doing was going down and shooting from a nearly impossible angle along the goal line. There was a tiny gap in the goalie/puck collision detection at that extreme angle and the puck would go in every time. But this guy from Foster City was a real shit. He videoed himself repeating the same poor angle shot (perhaps in practice mode) over and over again, like 100 times. Now after the first 10, I was like, 'yeah, I get it.' After this went on for like 40 times, I was fuming. Once it got to 80 times, I was being talked out of getting in my car and driving the 500 miles up to Foster City to kick this guy's ass."

In spite of the wild deadline and development snafus, *NHL FaceOff* was released on November 30, 1995. While Broadbooks couldn't confirm exact sales, it had to have sold more than 250,000 copies, since it's a PlayStation greatest hit. But sales didn't tell the whole story. The only hockey game on the PlayStation that holiday season, *NHL FaceOff* was a wild success. It proved to all of the other companies that EA Sports had competition. *NHL FaceOff* would not end up in the graveyard of hockey games the likes of *Mario Lemieux Hockey*, *NHL Stanley Cup*, *Brett Hull Hockey* and *Pro Sports Hockey* that EA sent to the bargain bin. *NHL FaceOff* was going to be around a while. Had EA Sports actually released *NHL 96* on the PlayStation, this story may not have happened.

"It was like a perfect storm for us. We couldn't believe that they failed to get their game out. And believe me, we were grateful for it," Broadbooks said. "We felt that we were given an opening that we might be able to leverage going forward. We were the only hockey game to talk about. Early PS1 owners were enthusiastic about the game and happy it came out. Since there weren't a lot of titles out, our game was played by lots of people that might not be sports game fans. I still run into people who tell me how much they loved the game at the time and still have it sitting on a shelf."

Craig Broadbooks' work on the *NHL FaceOff* series helped make the original Sony PlayStation a viable option for sports gamers.

However, the reasons for its success far transcend the fact that it was the only hockey game on the PlayStation. Simply put, it had everything. From former NHL MVP Sergei Fedorov on the cover to a killer opening theme and a variety of camera angles and a slew of modes, it was not only the first hockey game on the PlayStation, but a complete one as well. Over the years, well after the release of the original *NHL FaceOff*, *the* series began to push the boundaries of what a hockey game could and should be. Like EA's innovative development of the one-timer in *NHL 94*, Broadbooks and his team found ways to make the series a worthy competitor and for several

years, the better of the two big hockey games on the PlayStation. "After the first version of the game, we continued to develop *NHL FaceOff* for a number of years, both with my first company, Killer Game, then with my next company, SolWorks," Broadbooks said. "Early on, we enjoyed good sales. I think one of the versions got up to 380,000 units sold. At the time, those were very good sales. The game continued to evolve becoming a fully 3D game with polygonal characters. We were one of the first games to have full play-by-play audio. We were also the first to have what we called icon passing. A guy name Raj Altenhoff, who was our producer with Killer Game, then later at SolWorks came up with the idea. The *NFL Gameday* guys say they came up with it, but that's not true. Raj did. Those were some of the highlights."

Like the skill stick feature in current NHL games, icon-passing changed hockey games forever. Now able to pass to any player on the ice with the touch of a button, icon-passing, a key feature in *NHL FaceOff '97*, proved that Broadbooks and his team were no one-hit wonders. Unfortunately, it was at this moment in time that they realized they were fighting a war they couldn't win.

"I liked our early accomplishments with the game on the PS1 and I'm quite proud of the game and how we competed with EA," Broadbooks said. "Unfortunately, as time went on, we couldn't keep up with the EA brand, even though for many years we felt we had a superior game. I think the following story sums it up. Around '97 or so, we traveled up to Foster City to do a focus group with our game and EA's game. We felt that we had a superior game to EA's. The focus group went well. The participants really liked our game much better than EA's and this confirmed our own feelings on the matter. However, when asked which game the participants would buy, they almost all said the EA game. When asked why one participant said that was because he was worried his friends would give him grief about buying a non–EA sports game. The other participants felt similarly. So we found ourselves on the wrong side of a 'branding' lesson. From that point on, I knew we would not be able to beat them. Sony didn't have the desire to beat them either. Remember as a console maker, they wanted EA's games on their system and I don't think they really wanted us being a thorn in EA's side."

While Broadbooks and his team had the leg up on the PlayStation era of hockey games because EA didn't come out with a game until *NHL '97* (a game which didn't live up to expectations, as players resembled blocky football players with skates), EA Sports came out swinging for the PlayStation 2. "The real problem came with the PS2. We got our development units very late and had like four-five months to get the game out for the PS2, while also putting out the next version of the PS1 game," Broadbooks said. "The real killer here was that EA had a development team already in Japan, for like one year and at E3 that year, they had fantastic-looking versions of *NHL*, *FIFA*, and *Madden*. We had just gotten our dev units and barely had anything running on them. It was ominous. The ass-kicking had begun. *NHL FaceOff* came out, but it was basically a rushed version of the PS1 game with some better-looking graphics. It too was not received well.

"We did put out one more version of the game, 2003 I think. We just couldn't make up the ground with EA. Since we started working with the PlayStation 2, our [SolWorks] relationship with SCEA deteriorated and we parted ways after the 2003 version. So, I don't think of the *FaceOff* series in terms of a legacy. I think it is an interesting story and part of many people's history and experience. There were highlights and lowlights. For me, it was an important part of my professional experience and one I learned many lessons from."

EA Sports would later have to deal with the promising *NHL 2K* series, which like *NHL FaceOff*, proved that EA could be beaten. However, by the end of the 2003 hockey season, the *FaceOff* series had reached its climax. While the series hasn't been heard of since, its accomplishments from icon passing and that first magical Christmas, where it wore the undisputed, reigning and defending championship belt of the 32-bit video game hockey championship around its waist and held it for arguably four seasons, can never be denied.

"I like when people I meet reflect fondly about it," Broadbooks said. "They'll say, 'No way, you worked on that game. I loved that game. It was one of the first PS1 games I had.' Shockingly, this has happened to me more than a few times. I've actually been over at

people's houses and seen the game on a bookshelf next to their TV and game systems. That's cool! That's good enough for me."

Mark Turmell, *NBA Jam*

The Birth of Boomshakalaka

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All legends have to start somewhere. In terms of NBA licensed arcade games, that story begins and ends with Mark Turmell's *NBA Jam*. While there were other Arcade basketball games well before NBA Jam, none of them had the same type of impact in pop culture and none innovated the genre nearly as much. From something as awful as *Harlem Globetrotters: World Tour* to the wonderful *NBA Street* series, there's been a host of copycats or games that have been tremendously affected by the series. Over two decades since its original release however, *NBA Jam* is still without a doubt the most important arcade sports game ever.

The things that make *NBA Jam* still so appealing is that anyone can play it. One button to pass. One button to shoot. It's super simple. However, ask anyone who's gotten destroyed in the game and they'll tell you—the game's learning curve and strategy are there. There's a reward for the investment—there's a feeling of gratification with every steal, block, dunk and three-pointer. Like a Ramone's song, *NBA Jam* is able to take simplicity of play and turn it on its head. Add in Midway's digitized graphics engine, awesome sound that throws in wacky commentary and sneaker squeaks and you have an over-the-top basketball experience that would have been wonderful without an NBA license. With it however, *NBA Jam* is iconic.

At the same time, *NBA Jam* is chock-loaded with secrets, from hidden characters, power-ups and even secret modes, which brought the game more playability to the arcade than ever before. It's a safe assumption that *NBA Jam* is the deepest arcade game of its time and one that paved the way for a new generation of wonderful arcade experiences across a variety of genres.

NBA Jam also played a part in making Mark Turmell a legend in the video game industry. Although he was a respected creator prior to making the game, known for his passion, attention to detail and ability to work insane hours, he had yet to land that monster hit. After his work on *Smash TV* with John Tobias, his biggest success and most impressive accomplishment prior to *NBA Jam*, Turmell had his heart set on creating something different than a dual-stick shooter.

"I'm a huge NBA fan and love playing basketball, but back in those days when all video games were using only hand drawn art, the cutting edge game companies were trying to figure how to digitize actual photographs and get them into a game, which led me to pursuing a game where it made sense to utilize digitized characters," Turmell said. "My *Smash TV* art partner John Tobias pursued the fighting game genre with Ed Boon and I pursued sports and basketball. Seems funny now, since everything is digital, but back then it was cutting edge tech."

With a concept nailed down, Turmell and his team pitched the project to the NBA. Similar to the issues Michael Brook had in his dealings with the NHL for the EA Sports series on the Sega Genesis, Turmell had to get inventive in order to get what he wanted. It could have been a disaster for any another developer.

"The game was actually a couple months into development as a generic basketball 2 v 2 game when we decided to make a video of early gameplay and send to NBA requesting license," Turmell said. "The NBA immediately rejected it as they didn't want the NBA logo shown in 'seedy' arcade locations. Their main context for arcades was Times Square in NYC, which at the time did indeed include a few seedy arcades. We pushed back with video footage of normal arcades, family entertainment centers, bowling alleys, etc., and it worked. They granted us the first ever professional sport arcade license. They were very hands off and easy after granting rights. We had one contact who came in a couple of times, Greg Lassen. He was super to work with on *Jam*."

With the NBA license in hand, the first coin-op game to ever have that privilege, Turmell and his team had already made history. If *NBA Jam* was awful, it would still live on in the record books

forever. In infamy. That's never what Turmell or his team wanted. With Turmell at the helm and a super-talented team focused, *NBA Jam* was stocked with top-notch personnel that were ready to deliver something special. Turmell wanted a basketball game that looked different and played quick and easy. That's exactly what he got.

NBA Jam is the first licensed NBA game and arguably, the best.

"Ten months. Core team of six or seven, but early 'green screen' tech/filming/digitizing engaged Senior Art leaders Jack Haeger [*NHL Open Ice*] and John Newcomer [*Joust, Revolution X*] to help figure out best process, etc," Turmell said. "[The] Team grew a bit over course of project. Sal DiVita was hired or brought on mid project and made a great impact on the process, UI presentation and did whatever he could to help the project."

That didn't mean that development was an easy process however. As one of the first teams to deal with digitized graphics, combined with their ongoing desire to keep the game on the cutting edge of technology, they often had more work to do. Even problems you wouldn't expect started taking center stage. Again, thanks to the skill of Turmell and the rest of his team, they were able to tackle every issue as soon as it became one.

"Getting the player heads to look good at the various angles," Turmell said. "Artist John Carlton [*Forza Motorsport 2*] blocked out the different angles needed, but the NBA only provided front shots of each player. So we had to find video footage that would show the various angles and then hand touch up the images—Artist Tony Goskie [*WWE Immortals, Total Carnage*] was amazing at improving the images to be as realistic as possible for that era. We limited flesh tones to about seven and tinting faces to match body flesh color was always a challenge and required iteration.

"The two other big challenges were hoop and net physics and AI Programmer Shawn Liptak [*Psi-Ops: The Mindgate Conspiracy*] was key to engineering those and we iterated nonstop for most of project. I setup a ton of spots in the code where CPU assistance would kick in and cause different behaviors, which brought surprise and delight to the players and made each game feel unique and possibly show something the player had never seen before. This required nonstop playing and tweaking—12–14 hours a day of playing as the game was getting closer to completion."

During those long days in development, Turmell's investment in the

game proved to be unparalleled. In its own way, the level of detail, passion, energy, fun and focus in *NBA Jam* is a direct microcosm of Turmell's personality. It's almost like they are one and the same. Although fun and silly at times, *NBA Jam* is still a basketball game that is more than playable today, the same way that Turmell is still making games at Zynga that millions enjoy on a daily basis. Revolutionary at the time however, *NBA Jam's* success was due to the level of commitment of the team behind it. Staying together for years in a variety of games, the squad at Midway that developed *NBA Jam* is easily one of the most talented in arcade history.

And while the game is remembered for so many different things, from the level of secrets, to the playability that made it accessible to millions, everyone that plays the game still remembers one thing— the dunks. If not for the insane amount of dunks, *NBA Jam* might just be an excellent basketball game. With them, it's legendary.

For Turmell and his team however, getting an opportunity to fine-tune every aspect of the game proved to be the most gratifying part of the entire process.

"Creating the dunks was a blast. Figuring out speed of cycling through frames, height, which frame to hold on, when to slam it in, range from which move can occur," said Turmell. "But the part I really loved was the establishing and tweaking of all the CPU assist cheating tables! Based on the score, who you were, which team, clock, quarter, and more—we'd adjust everything. The percentage of deflections, bank shots, swishes, steals, air balls, errant passes, blocks, doinked dunks, half court shots, behind the back passes, dunk selection, AI, and more—were continually adjusted to keep games close, show variety and to surprise the player. This took an enormous amount of play testing and iteration.

"And because we were gambling daily on the outcome of matchups amongst teams, I always had a leg up since I knew how the tweaked numbers were manifesting themselves in game. The same thing eventually happened on *NFL Blitz* and I made a bunch of money off of our Sound Engineer Jonathan Hey!"

Being that attached to a project could wreak havoc on a developer, but like a father to a child, Turmell was able to see *NBA Jam's* faults

and get them fixed before the game was released to the general public. That process did yield its share of wacky moments however.

"Before a coin-op game ships out to the world, it is tested at local arcades by the team. We'd go and hangout to learn if players liked it," Turmell said. "On one of first nights, I saw a player begin a game by pressing player three start button, but he aligned himself at player two controls! And he thought he was playing the game! I casually stepped up and informed him and he moved over properly to player three controls. But after 30 seconds he switched back to the non-active player two controls! At that moment I went back to work and began adding the info boxes seen at the start of each match. I called them 'bozo boxes.' 'You are player three. You always control Pippin, your color is Blue.' I realized we needed to be over the top with communication, and, understand that our AI was too smart and human like. So we neutered the AI and made it so when your teammate owned the ball, he simply drove directly to hoop and did a simple dunk unless you pressed a button causing him to shoot or pass back."

With the kinks working themselves out, Turmell and his team's polish on the game yielded quick results. "I was pretty confident we had struck lightning in a bottle during development, and the first test at a local arcade confirmed it," Turmell said. "We had Jordan in that Chicago test game, but players were picking all the other teams, looking for strategies (even before we had added stats), and nonstop players paying $2 for a full 10-minute game showed we had a hit the very first night of location testing."

Upon release, *NBA Jam* was an insane hit and quickly become a pop culture sensation. This not only endeared Turmell and his team to the rest of the video game world, but even the NBA and its players as well.

"Shaq [O'Neal] was cool. We eventually did a Mo-cap shoot with him for a future game, but with *NBA Jam*, he actually bought two coin-op units and took one on the road as they traveled," Turmell said. "He told me the players would hang out in his suite gambling on the game!"

The game's success came at a price however for Midway and ended

up changing the arcade business forever. "*NBA Jam* and a few other high earning games severely impacted the pinball business," Turmell said. "Pinballs couldn't generate as much revenue, so the operators poured more money into video games such as *NBA Jam* and *Mortal Kombat*. So our pinball sales suffered.

"Regarding video games, it was the easy-to-pick-up-and-play game mechanics that resonated and showed other developers there was a fine line on simplicity and complexity, and you can do much with three buttons. Other sports games felt compelled to use all the buttons on a controller. But it might be the use of secrets and hidden codes which really amped up that aspect of games. Big head mode, secret hidden characters, CPU assist off, etc. We had so many interesting hidden codes in the Midway heyday, I think it left a mark on future generations of game developers."

At the end of the day however, the wild success *NBA Jam* was more than made up for it and *Mortal Kombat* killing the pinball industry. Spawning a series of sequels, as well as the *NBA Ballers*, *NBA Hang Time* and *NBA Showtime* franchises, *NBA Jam i*s an undoubtable classic.

"The game actually appealed to non–NBA fans. Many have told me over the years that they became fans after playing *NBA Jam*," said Turmell. "But the legacy would surely be centered around revenue. One billion dollars in first year, one quarter at a time, is epic. $2,468 in one week at one location. It set records for revenue and touched millions of players."

Over 20 years after its initial release, Turmell still has a warm place in his heart for the game and one word that made him a legend in his own time. "Boomshakalaka! The competitive gameplay, NBA brand, exciting commentary/audio and distribution allowed it to touch so many to become a cultural touchpoint," Turmell said. "Families competing, kids getting interested in NBA, the cutting edge technical feat in showing real digitized images in a game, all combined captured the fancy of a huge crowd."

David A. Palmer, *Doom*

The Little Jaguar That Could

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Originally released in 1993, John Carmack and John Romero's *Doom* is an iconic title that changed the face of the video games and pop culture forever. A founding father of the first-person shooter genre alongside *Wolfenstein 3D*, the unnamed marine and his battle against demons paved the way for games the likes of *Call of Duty* and *Counterstrike*. The game's battle with the United States government alongside *Lethal Enforcers*, *Night Trap* and *Mortal Kombat* in the mid–'90s over its sheer amount of mature content, blood, gore and violence also made it infamous. However, its ability to reinvent itself several times, on a variety of consoles has played just as big a role in its seemingly endless appeal. Remakes and rehashes in the Xbox and later Xbox One and PlayStation 4 have endeared it with as many fans as the original games did, too. With 10 million units sold across the whole franchise, it's hard to argue with its success.

That doesn't mean the series doesn't have its share of "could have beens" though. Designed by David A. Palmer Productions, the Game Boy Advance port of the original *Doom* had the potential to be something wonderful. And while it is easily the best FPS on the system, the road was never paved in gold. Although a system not known for its ability to harness the FPS in terms of visuals and the limited four-button controls and single D-pad, Palmer and his team put together an excellent tribute to the series in a wacky situation that sometimes defied logic. Even worse, the final product, for a variety of reasons, wasn't seen by nearly as many people as it could have been. A hard to find gem today, Palmer's *Doom* will go down as one of the finest handheld first-person shooters in video game history. The road to get to that place was far from linear however. A fight every step of the way, politics in Activision played a huge

role in the game's lack of success as well.

Those familiar with the *Doom* series may not even remember the game on the Game Boy Advance—and for good reason. Although published by Activision and ID Software, Palmer and his team, David A. Palmer Productions, known for their ports of Nintendo-based handheld games for over three decades were able to secure the rights to the franchise. (Although relatively inactive now, Palmer's brand, according to Palmer himself, is the oldest third-party developer for Nintendo.) Again, this may be puzzling to some younger gamers, but those older certainly remember the times when the same Spider-Man game was on every console. During those times, it wasn't unusual to see a different developer attached to each version of the game. This is the very reason why games from the *NHL* series, for example, are awful on Nintendo's Game Boy. (If you need an example, play *NHL 2000* on the Game Boy Color.) Electronic Arts and other gaming behemoths simply didn't have the manpower to develop the game on every console, so they outsourced—and produced mediocre titles that children or those looking for something on the go could pick up. Even as late as 2001, gamers weren't expecting wonderful games on the handhelds that could compare in quality to their home console brethren. Quite a different situation than today. But with a lack of clear quality control and a need to get the game out on as many different platforms at that time, publishers did whatever they could to get "something" out. The same could be said for Activision.

But unlike the host of subpar and mediocre handheld ports available, Palmer and his team had a different track record. Having successfully worked on games in the *Gex*, *Pitfall*, *Earthworm Jim* and *Looney Toons* franchises in the decade prior to working on *Doom*, Palmer had the reputation for being able to churn out quality handheld ports. That's exactly what they did with *Doom*. At the same time, changes in the industry at the time played a huge role in the development of the game.

"I actually wanted us to do it on the Game Boy Color believe it or not. One of the programmers I worked with for a long time was Nigel Speight," Palmer said. "Me and Nigel talked about *Doom* on the Game Boy Color, I knew the guys at Activision from living in

Santa Monica 93–97. Nigel made a demo on Game Boy Color and I sent it to Activision and to John Carmack and John Romero at ID Software. They all came back and said do *Commander Keen* to get a working relationship going and we will consider *Doom*. They loved what we did with *Commander Keen* on Game Boy Color and that's how we got working on *Doom*. By then the Game Boy Advance was out, so Game Boy Color was gone."

While *Commander Keen* (originally developed by *Doom's* Carmack on MS-DOS) was far from a best-seller on the Game Boy Color, it earned Palmer and his team the respect of Activision, no easy feat. A solid version of the side-scrolling platformer, it proved that Palmer and his team could capture the experience of the original— something that he was asked to do specifically with *Doom*. Things would only get more difficult from there. Designing a portable version of *Doom* from scratch, Palmer and his team had the difficult task of making a version of the game that was true to the original, but worked well on the tiny (well, by today's standards) Game Boy Advance screen. Palmer's team was definitely up to the task however. Consisting of members of the teams responsible for games in the *Need for Speed*, *Lord of the Rings* and *Star Wars* franchises, as well as *Gremlin*'s PlayStation classic, *Loaded*, the talent was definitely there.

"We had a fantastic team working on *Doom* GBA and it was due to their experience and skill that it came out as it did. I had flown out to Mesquite with one of our programmers, Byron Nilsson and collected that CD. I probably have it somewhere with some of my notes in development, but I know it was a bit of a nightmare at first. But if I remember rightly, once we had the segregation between the code and WADs sorted (and understood how the original code worked), it was easier. Matt had the coding 95% there when the (Atari) Jaguar code was found."

Make no mistake, this is when the entire development process got turned on its head. The reason why the Atari Jaguar code of *Doom* is special is because it is the first official port of the game and is perhaps the closest to the original PC version. Why Activision chose to use this code for the Game Boy Advance is unclear, especially considering that the same source code was also used on several

other ports including the Jaguar, Sega 32X, 3DO and PlayStation. Nevertheless, the change was one demanded by Activision and had to be implemented. At the same time, Palmer and his team were more than happy with the version of the game that they were developing.

"We had developed most of *Doom* creating our own 3D code. Matt Hopwood was the lead programmer, a superb 3D math programmer. We had a few sticking points to work around to get 30 frames-per-second," Palmer said. "But we were very close to sorting it and nine months into the project when John Carmack found the Jaguar source code on a CD, in his garage loft or some such obscure location. They wanted us to use that instead of our own code, so we did. If our version had been 100% polished by Matt, I do believe that would have been the better game as the code was purposely written for the Game Boy Advance. But that is in the past and I was more than happy with what was published."

The switch came at the absolute worst time, but Palmer and his team eventually finished the game. Although they didn't change their tune completely, the reception the game got from Activision and ID software made the pill a bit easier to follow. Although there are some differences between the original Jaguar version and what gamers experienced on the Game Boy Advance version, especially in terms of less gore and (green) blood, it's hard to argue that Palmer and his team didn't deliver a fully-playable and enjoyable *Doom* in the palms of your hands.
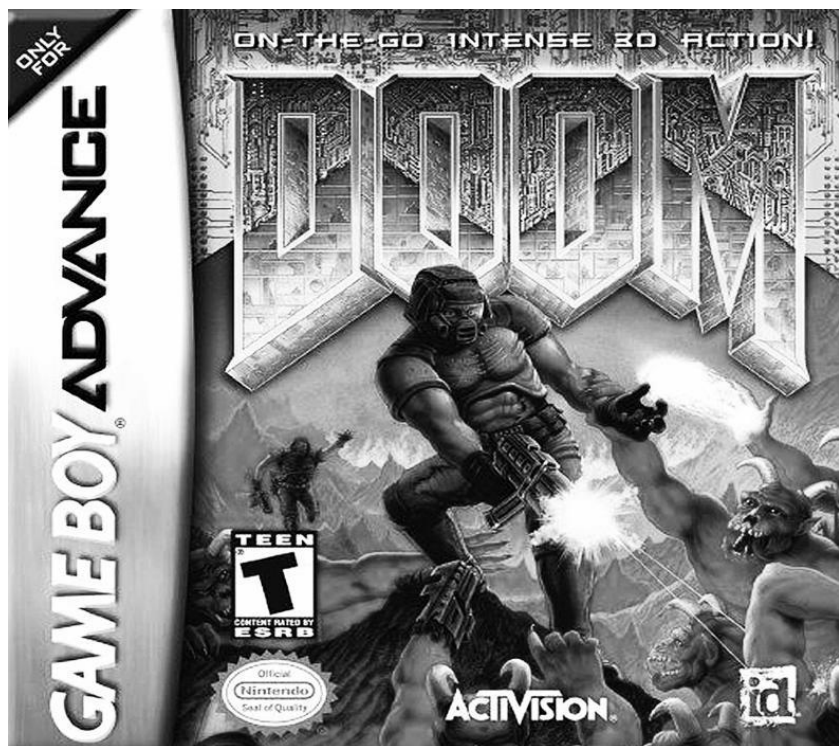
Doom on the Game Boy Advance is a blast, but the story behind it makes you wonder what it could have been.

"Swapping back to Jaguar code held us up badly and it was tight time wise," Palmer said. "I flew out to E3 that year with a CD of the finished *Doom* Game Boy Advance game code and a few ready-blown cartridges. It went down in an absolute storm at E3 and the ID and Activision guys had big smiles on their faces."

In the end however, Palmer and his team's successes never got the credit they justly deserved. After finding a way to get the game to run beautifully on the Game Boy Advance, the team lost the bid to develop *Doom II* on the handheld. Palmer even believes pieces of his code were used or leveraged by Bill McIntosh and Torus Games in Australia on the sequel.

"We had sorted all the coding issues so whoever got the rights to

Doom II had a cakewalk to develop the game. I honestly think that they used a lot of our code in certain areas, or it allowed them to do what we wanted do with *Doom II* if we had gotten the development. We should have agreed to a multi-game deal in order to better amortize our investment in *Doom* GBA which we spent a lot of time on (my fault) and *Doom* GBA didn't sell that well (140K copies) despite some great reviews," Palmer said. "I have my own thoughts on that. The game was released Oct 2001, at the time Xbox was released November 2001. A busy time—magazines, news media, stores, all were focused on the upcoming Xbox."

Could it be a changing gaming climate that led to *Doom's* demise on the Game Boy Advance? Or could it have been that the game, already ported to a litany of other systems, just wasn't strong enough to engage gamers on another console? Like the amount of licks it takes to get to the center of a Tootsie Pop, the world many never know. The argument can be made however that a complete lack of first-person-shooters on the Game Boy Advance and its more youthful library of games killed any chance *Doom* had for success, well before it was released. What can't be argued however is that the game, on its own merits, is an achievement in development that proved one of the greatest first-person shooters of all time could work and work well on a system with far less power than it was originally intended. In a day where solid handheld ports were rare, that, by itself, is a massive achievement.

But regardless of what could have been with *Doom*, Palmer is more than happy with everything else he's accomplished in the video game industry. Spanning over four decades in video games, Palmer is a rare commodity that can say he's developed original content and worked with some of the biggest names in media and brought their properties to the gaming medium for players of all shapes and sizes to enjoy.

"I think I have been involved in the design, production development and publishing of around 300 video games since 1982/3. We held Looney Tunes Licenses, all 103 characters 1989–1993, signed off with Dan Romanelli, AKA Dan the Man at Warner Licensing," Palmer said. "We worked a lot with Warner Classic Animation, at the studio run by Jean MacCurdy and Kathleen Helppie Shipley,

also worked with Chris Odges then at Hanna Barbera, Chris is now a senior vice president at WB Tech Ops. I have worked with many of the Hollywood Studios. I suppose the easy way to sum up is, I haven't worked with Disney."

Ken St. Andre and Brian Fargo, *Wasteland*

Fallout's Unlikely Papa

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The computer role-playing game genre was flooded with games in the 1980s. Most of them were based off of popular table-top RPGs and few did more than challenge the gameplay conventions of the time. A huge change of pace from the charming characters of Nintendo and their goomba-crushing gameplay however, CRPGs were an extremely niche, but profitable genre for the industry at the time. Regardless, the genre was begging for experimentation, for someone to push the envelope. After five years of development, a near eternity for a PC game at that time, *Wasteland* became that change, even if many gamers today have never heard of it.

While most CRPGs were far from sexy visually, what they did have, in droves, was atmosphere. Fueled by story, these games required gamers to think. Remember, the concepts of button-mashing or remembering complex button combinations to pull off signature maneuvers largely didn't exist then. At times, most of these games had puzzles with only one solution. Didn't know the answer? Couldn't find the key to open the door? You'd be stuck forever. Thanks to the innovation of the games that came later, playing these games now is akin to listening to your favorite album on cassette. Why would you? Easy. You love story and you appreciate the classics. If you know anything about CRPGs, you know Interplay's legacy is at the forefront of the genre. Their mainstay title, *Bard's Tale*, is still considered one of the finest of the era, an undoubted classic. The problem was Interplay wanted more. From here, *Wasteland* and eventually *Fallout* would be born.

"We were coming off of the success of *Bard's Tale* and really wanted to make another RPG for EA besides a sequel to *Bard's Tale*," said Brian Fargo, the producer of both *Bard's Tale* and *Wasteland*. "My

#1 movie around that time was *The Road Warrior* and most of the fiction I enjoyed was post-apocalyptic, this made my choice of subject matter an easy decision. This meant a modern setting so we sought out rules that would apply to everyday things like guns, sneaking, climbing etc. and that is when we stumbled onto *Mercenaries, Spies and Private Eyes* [a tabletop game designed by eventual *Wasteland* writer-designer Michael Stackpole] and their system to handling those elements."

Although these story-based games are considered more niche than mainstream today, in the '80s, this was the way you gamed if you had a personal computer. Like the first-person-shooter boom of the '90s, these games were all over the place. Most of the time, CRPGs had awesome box art too, with dragons, monsters and sometimes scantily clad women on them that the pimply-faced geek, indigenous to the RPG realm in those days, just couldn't run away from. *Wasteland* didn't have great box art though. And although it had an awesome story, it too could get lost, forever among the myriad of other CRPGs of the era. Even Ken St. Andre, one of the writers for the game, admits this.

Wasteland's cover was untypical of the CRPG genre, but its gameplay was able to take the platform to the next level.

"I'm glad the game succeeded in its time and built a following, but frankly I don't think there's a gamer under the age of 30 who has even heard of *Wasteland*," St. Andre said. "It's really just another brick in the wall, another drop in the ocean."

But to completely dismiss it would be silly. One of the most influential RPGs in not only computer gaming history, but in the entire video game industry, *Wasteland*'s post-apocalyptic story was in fact one of the main inspirations for the *Fallout* series. You could even make the argument that it influenced games the likes of *The Last of Us* and *Borderlands* in one way or another as well. Selling 250,000 copies at the time of release, it was a success, even if it wasn't as big a romp as *Bard's Tale*. For those reasons alone, it's both a cult and classic game that belongs in any best-of list.

And while *Wasteland* is considered a forgotten gem by many, its effect on the industry is undeniable. From setting to characters, the story of *Wasteland* has too many things in common with *Fallout* to count. In the original *Fallout*, the main character was said to have been taught his skills by a Desert Ranger. Who is the main character of *Wasteland*? A Desert Ranger and his team. The odes to characters, towns and weapons are aplenty as well. That's because *Fallout*, in essence, is the spiritual successor to the *Wasteland* series. "Most people know this history now, but EA wouldn't let me have the trademark to *Wasteland* so I decided we should make a new post apoc RPG using all the tenets of what made *Wasteland* so good," Fargo said. "Then the *Fallout* team took it to new heights with immersion and style."

With an imaginative skill system that influenced combat and your ability to solve puzzles (absolutely inspiring Fallout's S.P.E.C.I.A.L. system as well), *Wasteland* demands far more thought than even a traditional CRPG. The 35 skills range from lock-picking to swimming and even toaster repair and can all be used in one way or another to solve the game's puzzles. The ability to recruit characters is also a trademark of the *Wasteland* series that *Fallout* would borrow from. For those who play through the more modern versions of the game and feel the sentimental attachment to their in-game dog, you can thank *Wasteland* as well.

"We weren't trying to influence future computer game design. We just wanted a best-selling game that would make lots of money and enhance all of our reputations as game designers," St. Andre said. "We thought we were making something revolutionary and better than any other CRPG on the market—that was our goal. I wasn't

worried about the future. I just wanted the game to be the best CRPG on the market at the time and it was."

But you don't get to be influential unless you got something special. *Wasteland* is noteworthy thanks to a story that pulls no punches. The world is a cold, dark place that needs saving and is constantly changing, thanks to your actions. Like *Road Warrior* on steroids, its brutality and ability to joke about it is unparalleled for the era. Set in 1998, it made gamers think of what the world could be like when they got older to make life-changing decisions. While not universally praised by critics at the time, *Wasteland* was all about challenging the preconceived notions of what a CRPG could be. You could play through it several times and each time it would be different, depending on your choices. This allowed you to connect to the world in any way you want—to be anyone you wanted to be.

"The one thing I hated most about computer games of the time was the artificial constraints on character action within the game," St. Andre said. "The door is locked, and you need the key to unlock it in order to enter the room. Really? Bullshit! This is a world full of high explosives and power tools. If the door is locked, and we don't have the key, we'll blow it up. Or say that character X has maguffin Y and the players need it. The typical adventure game required the players to have the one key item that character X wants in order to hand over his maguffin. Why? Why not steal it? Buy it? Extort it? Or go to someone else for the functional equivalent. We were playing in the near future of our own planet. If there's one thing we know about reality, it's that there is always another way to do things. You might not like the alternatives, but there's more than one way to skin a cat."

"Deep in their hearts they knew that in that hideous pyre burned the malignant creature that almost ended all life on earth."

Wasteland's story is a complex one that changes every time you play, based on your actions.

Wasteland's intention was never to be iconic, but it was designed, from day one, to be different. That uniqueness was possible due to the choices you could make in the game. For example, killed non-player controlled characters stayed that way permanently and dialogue with characters changed based on the decisions you made. As a re-sult, *Wasteland* felt like it took place in a living, breathing world and allowed gamers to play the game they wanted to. It also opened the door to playing the game multiple times.

"I never thought of *Wasteland* as a video game," St. Andre said. "Video games were platform games, twitch games. *Wasteland* was a brain game, you had to figure things out to win it. Your personal reflexes didn't matter at all. Was it hard to create *Wasteland*? Yes. We spent more than a year putting it all together [the story], but it was more a matter of scale than one of challenge. In a few cases we had to learn some new tricks in order to create the stacks of instructions that allowed certain map sectors to behave the way they did. But mostly it was a matter of 1—imagining what the game should be doing at any particular time and location and 2—turning that into functioning code. The really hard work was done by the

Interplay programmers."

How different *Wasteland*'s narrative became had a lot to do with St. Andre and Stackpole's willingness to try something new and fresh with the plot. Like many of the games featured in this book, the original concept of *Wasteland* was extremely different from what it would become.

"The original concept that Brian Fargo pitched to me was a post-atomic war world single-player computer RPG that took advantages of some new programming tricks that Alan Pavlish had developed—techniques that allowed for area effect weapons like grenades or explosives of other sorts, tricks that allowed the game map to be modified on the fly," St. Andre said. "The original idea was to have the USA conquered by Russia, and embattled American citizens fighting a new war of independence—something like the movie *Red Dawn*. I developed such a scenario, but felt it would make a very dull game, so I pitched the true *Wasteland* concept—killer robots trying to wipe out all life so they could repopulate the planet with pure, unmutated stock, all being controlled by a damaged but still functional supercomputer in the sleeper base beneath Death Valley. I told him the game I really wanted to do was sort of Terminator meets Daffy Duck, set in the southwest desert of Arizona, Nevada, and California—an area I know well since that is where I live. After seeing the dull scenario I had worked out for *Red Dawn*, and hearing me talk about the Scorpitron in Las Vegas and the Blood Cultists in Needles, and the Sleeper Base under the White Tank mountains and under Death Valley, Brian came over to my idea, and so *Wasteland* was born."

Now a retired librarian, St. Andre has several book credits under his belt and a handful of games including the second fantasy role-playing game ever published, *Tunnels & Trolls*, which *Wasteland* draws a plethora of its gameplay mechanics from. His imagination, one quite different from the average developer and writer, set the tone for what *Wasteland*'s story was to become. Set 87 years after a nuclear war with the Soviet Union, *Wasteland* forces the player to maintain order in a place void of it, to get to the heart of what's wrong with the world and do what you think is needed to make a difference. Such accountability in such a wild, open world had

never been done before.

"The game sprang full-blown from the imaginations and pre-existing knowledge that we all brought to it from our own past histories," St. Andre said. "When I was writing Las Vegas, I did look at maps of downtown Vegas and the Strip in order to design the scenario map. That's about it. We did check our geography to be certain that key locations were accurately shown on the overall game map."

But it was on the back of the game's designer Alan Pavlish that *Wasteland* would realize its dream and become iconic. Cherry-picked to be the developer of *Wasteland* by Interplay, Pavlish was just 20 at the time development began, but already programmed games the likes of *Galaxian* and created *Murder on the Zinderneuf*, a detective game that much like *Wasteland*, pushed boundaries thanks to a constantly changing narrative every time you play.

"We had a lot of designers on the project to help create the world, but Alan gave everyone the tools to have deep cause and effect," Fargo said. "That element was the appeal and charm of *Wasteland* to me. I remember being told that every square you stepped on was a little program. This open world approach was amongst the first and very unique."

"Alan was then a brilliant programmer and a fun guy to be around, quick with a joke, easy to get along with," St. Andre said. "That being said, he mostly worked in California at the Interplay offices, and I mostly worked at home in Phoenix. We didn't see each other much. I think I pissed him off sometimes by asking him to create effects that he had not originally envisioned for the game. It irritated him when I'd say that I could do what I wanted in a clunky way with *BASIC*, but Alan was writing everything in Apple II machine language. Luckily, we had Michael Stackpole [whose 1983 table-top RPG *Mercenaries, Spies and Private Eyes* played an influential role in *Wasteland* and its skill system and attention to detail in terms of guns and ammunition] to act as a go-between and [sometimes] talk Alan into finding a way to do what I wanted the game to do."

The relationship between the writing team and Pavlish was far from

a perfect one, as St. Andre alluded to, thanks to the limits the writing team were trying to push the game and CRPG genre to. Together however along with the rest of the team that included Stackpole, Liz Danforth and John Carver, they were all able to compromise enough times to make the game stand out of the crowd.

"Mostly I learned that the job was way too big for one person to do it alone and that I didn't always get my way on how the game would develop and look," St. Andre said. "It was the first time I really ever had to work as part of a team in game design. My good luck is that the other members of the team were all brilliant, hard-working and dedicated people. We all really wanted the game to succeed and be different from and better than any CRPG that had come before it."

Perhaps it's not only the influence that *Wasteland* had on the CRPG genre that cements its role in video game history, but how its long-awaited sequel, *Wasteland 2* was received by fans and according to Fargo, has made $12 million. After Konami (who somehow got possession of the license) let the rights to the property lapse, Fargo obtained them in 2003 and announced a sequel. Although it took over a decade for the game to hit the PC and eventually the Xbox One and PlayStation 4, the game was funded via Kickstarter, raised over $3 million and includes Pavlish, St. Andre, Stackpole, Danforth and *Baldur's Gate* and *Fallout* veteran Chris Avellone on the development team, as well as fellow *Fallout* vet Mark Morgan as composer. Praised by critics, *Wasteland 2* proves that quality storytelling and small teams can still make games that have an impact on the industry.

With *Wasteland 3* already in development and set for a 2019 release, the future for the series appears to be a bright one. Having raised over $3 million via crowdfunding platform Fig, the series is set to play a role in the development of the post-apocalyptic genre for years to come. However, that doesn't mean Fargo has forgotten about the game that made all of that possible.

"To me, there were two elements that made *Wasteland* so unique. The first was the deep cause and effect," Fargo said. "Your choices would nest deeply and pay off in meaningful or strange ways. The

whole Bobby episode with the dog, which turned uglier and uglier based on the player was fresh. And the second pillar was the moral ambiguity of choice and making the player uncomfortable with situations. The world felt real and not scripted."

Conclusion

The time has come. For what, you ask? Well, to say goodbye. For now. This experience I hope was an enjoyable one for you. One that informed, entertained and educated you. For me, it's been almost life-affirming, almost a dream. The thought of partaking in it again is definitely on my mind. But that has a lot to do with you and how you were affected by it.

Simply put, the opportunity to do something like this doesn't come along every day. It was nerve-wracking at times. There were so many nights where I sat worried if I could get every developer I needed or if people would be interested in learning about some of these forgotten games. But in spite of that, there isn't a day that goes by that I don't feel amazing for setting out on this journey. So many opportunities have come from this that I'll never be the same person ever again. Thank you for sticking with me throughout.

With my daughter now eight months old, I've already seen that she's attracted to my and my wife's iPhones, whether it's *WWE SuperCard* or *Disney Emoji Blitz*. The seed is there. This little bundle of joy is going to be a gamer. For that reason, I feel even better about this project. She will read this book, too. But the fact that you guys can give this book to someone else and let them discover the stories behind these wonderful games—and people—that makes it an even cooler experience.

List of Names and Terms

Absolute Entertainment

Acclaim

Activision

Adult Swim

Adventure Island

The Adventure of Link

AKI

Alan Wake

American Dad

Angry Birds

Angry Video Game Nerd

Arch-Rivals

Army Men

Atari: Game Over

Atari Jaguar

Atari 2600

Avory, Sarah Jane

Jensen, Jane

Jericho, Chris

Johnson, Greg

Kauzlaric, Clayton

Keren, Julia

Keren, Itay

Keystone Kapers

Killer Game

King's Bounty

King's Quest

Kitchen, Garry

Knight, Gabriel

Lake, Sam

Leisure Suit Larry

Lemieux, Mario

Leprince, Audrey

Lethal Enforcers

Lieberman, Joseph

Lizardcube

LJN

Loaded

Lode Runner

Madden, John

Maniac Mansion

Max Payne

Mendheim, Michael

Mey, Carl

Michaels, Shawn

Missile Command

Mr. Perfect

Mortal Kombat

Mushroom 11

Mutant League Football

Mutant League Hockey

NBA Jam

Need for Speed

Nelson, Sam

NEMO

NHL FaceOff

NHL Faceoff '97

WWF No Mercy

WWF Wrestlefest

WWF Wrestlemania: The Arcade Game

Xbox

Xenophobe

Yar's Revenge